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CATALOGUE
OF THE
BIRDS
IN THE
BRITISH MUSEUM.

VOLUME XIII.

LONDON:
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1890.



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CATALOGUE
OF THE
P A S S E R I F O R M E S,
OR
PERCHING BIRDS,
IN THE
COLLECTION
OF THE
BRITISH MUSEUM.

STURNIFORMES,
CONTAINING THE FAMILIES
ARTAMIDÆ, STURNIDÆ, PLOCEIDÆ, ALAUDIDÆ.
ALSO THE FAMILIES
ATRICHIDÆ AND MENURIDÆ.

BY
R. BOWDLER SHARPE.

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.

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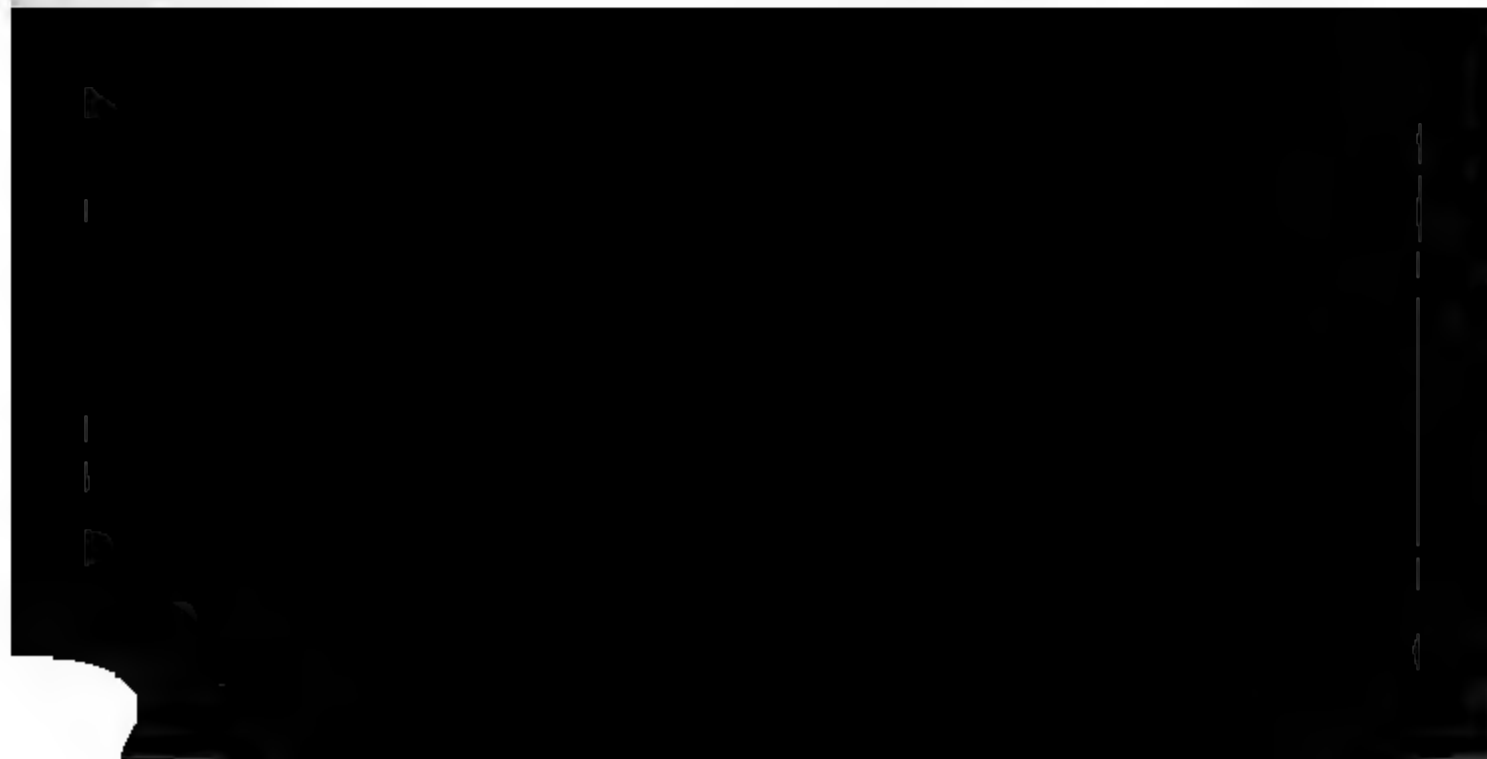
PREFACE.

SINCE the publication of the preceding volume, more than two years ago, the collection of Birds has received a further remarkable increase by the acquisition or donation of several valuable collections. For the most important of them the Trustees are again indebted to the liberality of Mr. F. DuCane Godman, F.R.S. Aware of the incompleteness in which the Fauna of the United States was represented in the Museum, he secured the celebrated collection of North-American Birds formed by Messrs. H. W. Henshaw and C. H. Merriam, and presented it to the Trustees. An idea of its value and extent may be formed by the fact that it consisted of 779 species and over 11,000 specimens, all of which are authentically named.

The Salvin-Godman, Hume, and Tweeddale Collections, which contribute so large a contingent in the lists of specimens, have been referred to in the previous volumes. Mr. Henry Seebohm continues to enrich the Museum Collection with numerous and valuable donations. Of the other donors who have contributed to the series described in the present volume, I have to mention the late Mr. W. A. Forbes, Mr. R. Collett, W. D. Cumming, Esq., Emin Pasha, H. C. V. Hunter, Esq., F. J. Jackson, Esq., Mrs. J. S. Jameson, Col. Swinhoe, and Dr. L. Vieira.

ALBERT GÜNTHER,
Keeper of the Department of Zoology.

British Museum (N. H.),
May 14, 1890.



INTRODUCTION.

WITH the present volume the description of the Acromyodian Passeres is completed.

It will be seen that, owing to the large accessions to the collection, the series examined exceeds that of any of the preceding volumes. Out of the 601 species and subspecies here recognized, only 58 are unrepresented in the collection, or about 10 per cent. Of these at least 25 are of very doubtful value, so that the collection actually contains nearly 95 per cent. of the known species. The British Museum possesses the types of 152 species, besides those of 61 no longer considered to be of that rank. The number of specimens reaches the total of 11,699.

By the acquisition of part of the Shelley Collection of African birds by the Trustees of the Museum, my labours on the *Ploceidæ* have been much facilitated, as I have had before me the whole of Capt. Shelley's series of specimens, on which was based his monographic essay on the African Weaver-Birds.

Mr. Seebohm has likewise presented his entire collection of Palæarctic *Alaudidæ*, and the *Sturnidæ* and *Ploceidæ* of the Swinhoe collection, comprising many types of species.

The signs employed are the same as in the former volumes of the Catalogue. "[P.]" means "Presented by," "[C.]" means "Collected by," and "[E.]" means "Received in Exchange."

R. BOWDLER SHARPE.

May 10, 1890.



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C A T A L O G U E

OF

B I R D S.

Order II. PASSERIFORMES

(Cat. B. vol. iii. p. 1).

Suborder I. PASSERES

(Cat. B. vol. iii. p. 6).

Section C. STURNIFORMES

(Wallace, Ibis, 1874, p. 412).

The classification adopted in the third volume of the present work (pp. 1–3) for the arrangement of the *Passeriformes* was principally that of Mr. Wallace (Ibis, 1874, p. 409), with certain modifications. During the sixteen years which have elapsed since Mr. Wallace propounded his idea of an arrangement of the Passeres, we have learned that the classification adopted in 1877 is somewhat artificial; the characters which were then thought to be of great importance now seem to be of little worth. Of the three Sections which I have adopted from Mr. Wallace the one treated of in the present volume seems to be the most unnatural. The Starlings are divorced from the *Corvidæ*, to which they are undoubtedly allied; the *Artamidæ* may be a Sturnine family, but of that I am not yet assured; the *Alaudidæ* find themselves separated from the *Motacillidæ*, and the *Ploceidæ* from the *Fringillidæ* and *Icteridæ*.

The following characters will serve to distinguish the four families treated of in the present volume :—

- A. Planta tarsi entire.
 a. Nostrils placed low in the bill, nearer to the tomium than to the culmen.
 a'. Wings extremely long, reaching to the end of the tail **Artamidæ, p. 2.**
 b'. Wings moderate, not reaching to the end of the tail **Sturnidæ, p. 22.**
 b. Nostrils placed high in the bill, nearer to the culmen than to the tomium **Floceidæ, p. 198.**
 B. Planta tarsi scutellated **Alaudidæ, p. 512.**

Family I. ARTAMIDÆ.

Key to the Genera.

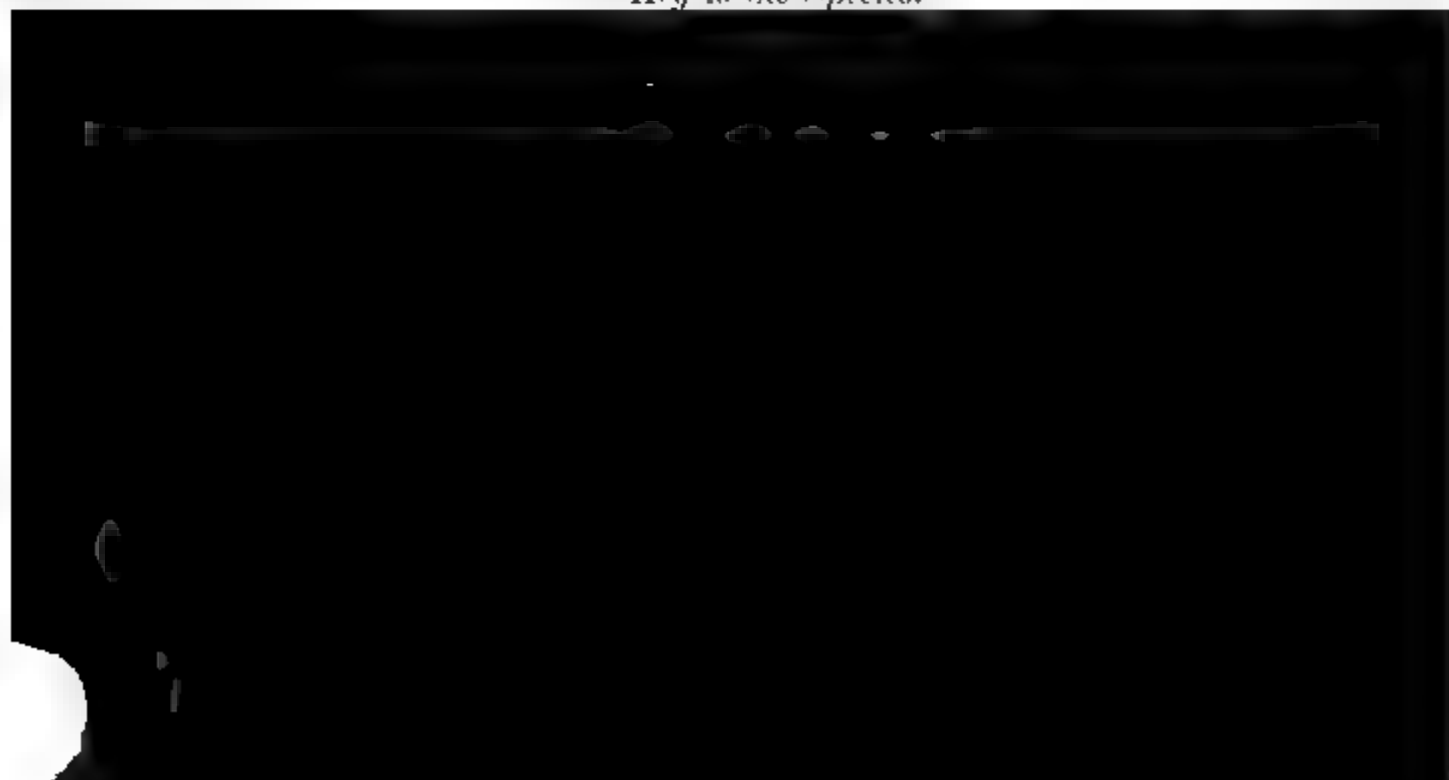
- a. Bill long and pointed, the culmen exceeding the length of the hind toe and claw; tail-feathers ordinary **ARTAMUS, p. 2.**
 b. Bill broad, the culmen not so long as the hind toe and claw; tail-feathers elongated in the centre of the shafts, giving a spine-like appearance **PSEUDOCERILLIDON, p. 21.**

1. ARTAMUS.

- | | |
|--|-----------------|
| | Type. |
| Artamus, <i>Vicill. Analyse</i> , p. 41 (1816) | A. leucogaster. |
| Ocypterus, <i>Cuv. Règne Anim.</i> p. 339 (1817) | A. leucogaster. |
| Leptopteryx, <i>Horsf. Trans. Linn. Soc.</i> xiii. p. 143 (1821) | A. leucogaster. |
| Cf. <i>Sharpe in Rowley's Orn. Misc.</i> iii. pp. 179-202. | |

Range. Confined to the Indian and Australian Regions.

Key to the Species.



- b*⁴. Throat and fore neck black, as well as the entire sides of the face *pelewensis*, p. 9.
- c*⁴. Throat black, the hinder cheeks white on each side, leaving the ear-coverts only and the sides of the neck black *mentalis*, p. 9.
- b*¹. Back pure white.
- c*¹. Head all round, wings and tail ashy brown *monachus*, p. 10.
- d*¹. Head all round, wings and tail black *insignis*, p. 11.
- b*. Rump brown like the back; upper tail-coverts ashy white; breast pale vinaceous brown *fuscus*, p. 11.
- c*. Rump and upper tail-coverts clear ashy grey, like the back.
- c*¹. Under surface of body vinaceous chestnut; a broad white eyebrow *superciliosus*, p. 15.
- d*¹. Under surface of body beautiful grey; no superciliary streak *personatus*, p. 16.
- d*. Rump and upper tail-coverts black.
- e*¹. Under surface of body ashy grey; chin black.
- e*². A narrow blackish frontal line; chin and upper throat blackish.
- e*³. Larger: under tail-coverts black, broadly margined with white *cinereus*, p. 16.
- d*³. Larger: under tail-coverts white *hypoleucus*, p. 17.
- e*⁴. Smaller: under tail-coverts black, narrowly edged with white; more black on the face than in the preceding species *melanops*, p. 17.
- f*². No frontal line of black; chin itself and angle in front of the eye only black.
- f*³. Larger: two centre tail-feathers tipped with white in the same way as the lateral ones *perspicillatus*, p. 18.
- g*³. Smaller: two centre tail-feathers entirely black, the rest tipped with white *venustus*, p. 18.
- f*¹. Under surface of body dull brown; chin scarcely any darker.
- g*². Much larger: upper surface brown; upper tail-coverts black, the rump uniform with the back; under wing-coverts white . . *sordidus*, p. 19.
- h*². Much smaller: upper surface brown, the upper tail-coverts and the rump black; under wing-coverts uniform with the breast, and scarcely any paler *minor*, p. 20.

1. *Artamus leucogaster*.*

? La Pie-Grièche de Manille, *Briss. Orn.* ii. p. 180, pl. xviii. fig. 2 (1760).

* In 1878 I pointed out that considerable obscurity existed as to the name of *leucorhynchus* for this wide-spread species, but Lord Tweeddale argued very ably for the retention of Linnæus's name. Count Salvadori, however, in his 'Ornitologia della Papuasie' has adopted my conclusions, and as our nomenclature has been widely followed, I propose not to resuscitate the name given by Linnæus, about which there must always be some reasonable doubt.

- ? *Lanius leucorhynchus*, *Linna. Mantissa*, p. 524 (1771, ex *Briss.*); *Gm. S. N. i.* p. 305 (1788).
- ? La Pie-Grièche dominiquaine des Philippines, *Sonn. Voy. Nouv. Guin.* p. 54 (1776).
- ? *Lanius philippinus*, *Scop. Del. Flor. et Faun. Insubr. ii.* p. 85 (1785, ex *Sonn.*).
- ? *Lanius dominicanus*, *Gm. Syst. Nat. i.* p. 307 (1788, ex *Sonn.*).
- Ocypterus leucogaster*, *Valenc. Mém. Mus. d'Hist. Nat. vi.* p. 21, pl. vii. fig. 2 (1820).
- Leptopteryx leucorhynchus* (*nec L.*), *Horsf. Trans. Linn. Soc. xiii.* p. 244 (1821).
- Lanius leucorhynchus* (*nec L.*), *Raffl. Trans. Linn. Soc. xiii.* p. 386 (1821).
- Leptopteryx leucogaster*, *Wagl. Syst. Av., Leptopteryx*, sp. 2 (1827).
- Ocypterus albiventer* (*nec Gould*), *Less. Traité*, p. 370 (1831).
- Ocypterus leucorhynchus*, *Kittl. Knopf. Vög.* p. 23, Taf. xxx. fig. 1 (1832); *S. Mull. Verh. Land u. Volkenk.* p. 21 (1830-44).
- Artamus leucopygia*, *Gould, P. Z. S.* 1842, p. 17; *Gray, Gen. B. i.* p. 285 (1845); *Gould, B. Austr. fol. ii.* pl. 33 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 190 (1849); *Bp. Consp. i.* p. 344 (1850); *Reichenb. Vög. Neuholl.* p. 171 (1850); *Gray, P. Z. S.* 1853, p. 193; *id. Cat. B. New Guinea*, p. 58 (1850); *Gould, P. Z. S.* 1863, p. 233; *id. Handb. B. Austr. i.* p. 154 (1865); *Finsch, Neu-Guinea*, p. 171 (1865); *Walden, P. Z. S.* 1860, p. 555; *Gray, Hand-l. B. i.* p. 289, no. 4270 (1860); *Bull, J. A. S. Beng. xli.* p. 283 (1872); *Cab. & Reichen. J. f. O.* 1870, p. 322; *W. A. Forbes, P. Z. S.* 1877, p. 122; *Masters, Proc. Linn. Soc. N. S. W. i.* p. 48 (1877); *Casteln. & Rams. t. c.* p. 380; *Rams. t. c.* p. 302; *id. op. cit. i.* p. 179 (1878), iii. p. 276 (1878), iv. p. 98 (1880); *W. A. Forbes, Rep. Voy. 'Challenger,' Zool. ii.* p. 85 (1881); *Rams. Proc. Linn. Soc. N. S. W. (2) ii.* p. 167 (1887).
- Artamus leucorhynchus*, *Gray, Gen. B. i.* p. 285 (1845); *Bp. Consp. i.* p. 343 (1850); *Cab. Mus. Hein. Th. i.* p. 208 (1850); *Cass. U. S. Expl. Exped., Birds*, p. 140 (1858); *Gray, P. Z. S.* 1860, p. 354; *Wall. Ibis*, 1860, p. 141; *Gray, Hand-l. B. i.* p. 289, no. 4200 (1860); *Walden, Ibis*, 1872, p. 371; *id. Trans. Z. S. viii.* p. 67 (1872); *id. Ibis*, 1873, p. 309; *Hume, Str. F.* 1874, p. 214; *id. Nests & Eggs Ind. B.* p. 195 (1875); *Salvnd. Ucc. Born.* p. 140 (1875); *Sharpe, Ibis*, 1876, p. 45, 1877, p. 21; *Tweedd. t. c.* p. 313, 1878, p. 343; *id. P. Z. S.* 1877, pp. 544, 602, 759, 826, 1878, pp. 243, 342, 700, 917; *Sharpe, Journ. Linn. Soc., Zool. xiv.* p. 688 (1879); *id. P. Z. S.* 1879, pp. 315, 317; *Meyer, t. c.* p. 116.

Papuasias etc. ii. p. 167 (1881); *Scl. P. Z. S.* 1883, pp. 51, 195; *H. O. Forbes, P. Z. S.* 1884, pp. 427, 432; *Guillem. P. Z. S.* 1885, p. 635; *Vorderm. N. T. Nederl. Ind.* xlv. p. 378 (1886); *Ramsay, Tab. List Austr. B.* p. 3 (1888).

Artamus papuensis, *Bp. Consp.* i. p. 344 (1850, *ex Temm. MSS. in Mus. Lugd.*); *Scl. Journ. Linn. Soc.* ii. 1858, p. 159; *Gray, P. Z. S.* 1858, p. 179, 1861, p. 435; *Finsch, Neu-Guinea*, p. 171 (1865); *Walden, P. Z. S.* 1866, p. 555; *Gray, Hand-l. B.* i. p. 289, no. 4282 (1869); *Beccari, Ann. Mus. Civic. Genov.* vii. p. 709 (1875).

Artamus leucorhynchus, *Walden, Trans. Z. S.* ix. p. 174 (1875); *Sharpe, Trans. Linn. Soc.* (2) i. p. 323 (1877); *Tweedd. P. Z. S.* 1877, p. 544, 1878, pp. 282, 342.

Artamus leucorhynchus, var. *celebensis*, *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 69 (1876).

Artamus celebensis, *Brüggem. t. c.* p. 70 (1876); *Tweedd. Ibis*, 1878, p. 386.

Artamus muschenbroeki, *Meyer, Vög. Nester und Eier Ostind-Arch.* p. 30 (1884); *Salvad. P. Z. S.* 1884, p. 578; *id. Ibis*, 1884, p. 355.

Adult male. General colour above brown, inclining to chocolate; rump and upper tail-coverts pure white, forming a transverse band; scapulars like the back; wing dark slate-colour, the quills black; tail-feathers black, slightly paler towards the ends; head and neck all round ashy, the lores and margin of forehead rather blacker; under surface of body from the fore neck downwards, and including the under wing-coverts and axillaries, pure white: "bill bluish grey at the base, black at the tip; legs and feet mealy greenish grey; iris brown" (*J. Gould*). Total length 7·5 inches, culmen 0·8, wing 5·35, tail 2·55, tarsus 0·75.

Adult female. Similar to the male. Total length 6·5 inches, culmen 0·8, wing 5·25, tail 2·1, tarsus 0·7.

Hab. Andaman Islands, Sumatra, Java, Borneo, Philippine Archipelago, Sulu Archipelago, Bali, Lombok, Flores, Timor; throughout the Moluccas from Celebes to New Guinea and Australia.

<i>a.</i> ♂ ad. sk.	Andamans, June 1865 (<i>R. C. Beavan</i>).	Tweeddale Coll.
<i>b, c.</i> ♂ ♀ ad. sk.	Ross Island, Andamans, Jan. 7, 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>d.</i> ♀ ad. sk.	S. Andamans, Dec. 16, 1872 (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>e.</i> Ad. sk.	S. Andamans, March 27, 1873.	Hume Coll.
<i>f.</i> ♂ ad. sk.	S. Andamans, July 13, 1873 (<i>W. Davison</i>).	Hume Coll.
<i>g.</i> ♀ ad. sk.	Port Blair, S. Andamans.	Hume Coll.
<i>h.</i> ♂ ad. sk.	Port Blair, March 1873 (<i>W. Davison</i>).	Hume Coll.
<i>i.</i> ♂ juv. sk.	Port Blair, June 16, 1873 (<i>W. Davison</i>).	Hume Coll.
<i>k, l.</i> ♂ imm. sk.	Port Blair, June 1873 (<i>R. J. Wimberley</i>).	Hume Coll.
<i>m.</i> ♂ juv. sk.	Port Blair, July 23, 1873 (<i>R. J. Wimberley</i>).	Hume Coll.

n, o. ♂ ♀ ad. sk.	Port Mout, Jan. 9, 1873 (<i>W. Davison</i>).	Hume Coll.
p, q. Ad. sk.	Port Mout, April 1873 (<i>W. Davison</i>).	Hume Coll.
r. ♀ ad. sk.	Aberdeen, March 23, 1873 (<i>W. Davison</i>).	Hume Coll.
s. ♂ ad. sk.	Aberdeen, April 30, 1873 (<i>W. Davison</i>).	Hume Coll.
t. ♀ ad. sk.	Aberdeen, May 6, 1873 (<i>W. Davison</i>).	Hume Coll.
u. ♂ ad. sk.	Aberdeen, Nov. 6, 1875 (<i>F. A. de Roepstorff</i>).	Hume Coll.
v, w. ♂ ad. sk.	Aberdeen, Dec. 1872 (<i>W. Davison</i>).	Hume Coll.
x. ♂ ad. sk.	Little Coco Island, March 25, 1873 (<i>W. Davison</i>).	Hume Coll.
y, z. Ad. sk.	Mt. Harriett, Dec. 1872 (<i>W. Davison</i>).	Hume Coll.
a'. Ad. sk.	Sumatra (<i>Raffles</i>).	India Museum.
b'. ♂ ad. sk.	Sumatra.	Wallace Coll.
c'-c'. Ad. sk.	Sumatra (<i>Carl Bock</i>).	Tweeddale Coll.
f'. Ad.; g', h'. Imm. sk.	Lampung, S.E. Sumatra (<i>E. C. Buxton</i>).	Tweeddale Coll.
i'. Ad. sk.	Java.	India Museum.
k'. ♂ ad. sk.	Java.	Salvin-Godman Coll.
l'-m'. Ad.; n'. Imm. sk.	Java.	Tweeddale Coll.
p'. ♀ ad. sk.	W. Java.	Wallace Coll.
q'. Ad. sk.	W. Java (<i>E. C. Buxton</i>).	F. Nicholson, Esq. [P.].
r', s'. Ad. sk.	Labuan (<i>J. Motley</i>).	Tweeddale Coll.
t. ♂ ad. sk.	Marup, Sarawak (<i>A. Everett</i>).	Tweeddale Coll.
u'. Ad. sk.	Sibu Island, May 5, 1874.	A. Everett, Esq. [O.].
v'. ♀ ad. sk.	Sarawak, Nov. 23, 1877 (<i>H. Everett</i>).	Tweeddale Coll.
w'. Ad. sk.	Sulu Islands (<i>Burbridge</i>).	H. Veitch, Esq. [P.].
x', y'. ♂ ♀ ad. sk.	Luzon, Jan. 1872 (<i>A. B. Meyer</i>).	Tweeddale Coll.
z'. ♂ ad. sk.	San Mateo, Luzon, Jan. 30, 1877 (<i>A. Everett</i>).	Tweeddale Coll.
a, b. ♂ ad. sk.	San Mateo, Luzon, Feb.	Tweeddale Coll.

ν . ♂ ad. sk.	Surigao, May 1887 (<i>A. Everett</i>).	Tweeddale Coll.
ξ . ♂ ad. sk.	N. Bohol, Oct. 1877 (<i>A. Everett</i>).	Tweeddale Coll.
σ, π . ♂ ♀ ad. sk.	Dumaguete, Aug. 1877 (<i>A. Everett</i>).	Tweeddale Coll.
ρ, σ . ♂ ♀ ad. sk.	Basilan, May 1878 (<i>A. Everett</i>).	Tweeddale Coll.
τ, ν . Ad. sk.	Celebes.	Tweeddale Coll.
ϕ . ♂ ad. sk.	Menado, N. Celebes.	Tweeddale Coll.
χ . Ad. sk.	Menado, N. Celebes.	Gould Coll.
ψ . ♀ ad. sk.	Menado, N. Celebes.	Wallace Coll.
ω . ♀ ad. sk.	Tondano, Celebes.	Wallace Coll.
α' . ♂ ad. sk.	Makassar.	Wallace Coll.
β', γ' . ♂ ad. sk.	Lombok.	Wallace Coll.
δ' . ♀ ad. sk.	Lombok (<i>A. R. Wallace</i>).	Tweeddale Coll.
ϵ' . ♀ ad. sk.	Lombok (<i>A. R. Wallace</i>).	Gould Coll.
ζ' . Imm. sk.	Lombok.	Wallace Coll.
η' . ♀ ad. sk.	Bali.	Wallace Coll.
θ', ι' . Ad. sk.	Flores.	Wallace Coll.
$\kappa'-\nu'$. Ad.; ξ' . ♂ imm. sk.	E. Timor.	Wallace Coll.
σ', π' . ♂ ♀ ad. sk.	Isle of Kirimoen, Tenimber Group, Sept. 1, 1882 (<i>H. O. Forbes</i>).	Tweeddale Coll.
ρ' . ♀ ad. sk.	Isle of Kirimoen, Sept. 1, 1882.	H. O. Forbes, Esq. [P.]
σ' . ♀ ad. sk.	Larat, Timor Laut, July 23, 1882.	H. O. Forbes, Esq. [C.]
τ' . ♂ ad. sk.	Larat, Timor Laut, Sept. 24, 1882.	H. O. Forbes, Esq. [C.]
ν' . ♀ ad. sk.	Bouru.	Wallace Coll.
ϕ', χ' . Ad. sk.	Batchian.	Wallace Coll.
ψ' . ♀ ad. sk.	Batchian.	Salvin-Godman Coll.
ω' . Ad. sk.	Gilolo.	Wallace Coll.
α'' . Ad. sk.	Morty Island.	Wallace Coll.
$\beta''-\delta''$. Ad. sk.	Goram.	Wallace Coll.
ϵ'' . Ad.; ζ'' . Imm. sk.	Mysol.	Wallace Coll.
η'' . ♂ ad. sk.	Mysol (<i>A. R. Wallace</i>).	Tweeddale Coll.
θ'' . Ad. sk.	Island of Batanta, June 1877 (<i>Bruijn</i>).	Purchased.
ι'' . Ad. sk.	New Guinea.	Wallace Coll.
κ'', λ'' . Ad. sk.	Australia.	Sir T. Mitchell [P.].
μ'' . Ad. sk.	Somerset, Cape York.	Tweeddale Coll.
ν'' . ♂ ad. sk.	Cape York.	Voy. of H.M.S. 'Challenger.'
ξ'' . Ad. sk.	Brisbane, Queensland (<i>J. T. Cockerell</i>).	Salvin-Godman Coll.
σ'' . Ad. sk.	Queensland (<i>J. T. Cockerell</i>).	Salvin-Godman Coll.
π'' . Ad. sk.	Queensland.	Tweeddale Coll.
ρ'' . Ad. sk.	Moreton Bay.	Tweeddale Coll.
σ'', τ'' . ♂ ♀ ad. sk.	Moreton Bay (<i>F. Strange</i>).	Gould Coll.
ν'' . ♀ ad. sk.	Port Darwin, Nov. 1881 (<i>Dr. Coppinger</i>).	Voy. of H.M.S. 'Alert.'
ϕ'' . ♂ ad. sk.	Port Denison, May 1881 (<i>Dr. Coppinger</i>).	Voy. of H.M.S. 'Alert.'

x". Ad. sk.	Port Essington.	Capt. Chambers [P.]
ψ", ω". Ad. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.]
a. ♀ ad. sk.	Peron's Peninsula, Shark Bay, May 1858 (Dr. Roegner).	Voy. of H.M.S. 'Herald.'
b. ♂ ad. sk.	Aru Islands.	Wallace Coll.

2. *Artamus maximus*.

Artamus maximus, Meyer, Sitz. k. Akad. Wien, lxi. p. 203 (1874);
Sch. Ibis, 1874, p. 417; *Becconi, Ann. Mus. Civic. Genov.* vii.
 p. 709 (1875); *Gould, B. N. Guin.* iv. pl. 19 (1878); *Sharpe in*
Rowley's Orn. Misc. iii. p. 188 (1878); *Salvad. Ann. Mus. Civic.*
Genov. xv. p. 39 (1879); *id. Orn. Papuasia e delle Molucche*, ii.
 p. 172 (1881); *Guillem. P. Z. S.* 1885, p. 635.

Adult male. General colour above deep black; rump and upper
 tail-coverts white; wings and tail-feathers black, the latter very
 narrowly bordered with white; sides of head and neck, entire
 throat and fore neck deep black, like the back; remainder of the
 body underneath pure white; under wing-coverts white, the outer-
 most of the lesser series black; quills ashy below. Total length
 7·5 inches, culmen 0·8, wing 6·3, tail 2·8, tarsus 0·75.

Hab. N.W. New Guinea.

a. ♂ ad. sk.	Arfak Mountains.	M. Leon Lagtaize [C.]
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3. *Artamus melanoleucus*.

Loxia melaleuca, Forster, *Icon. ined.* 40; *id. Descr. Anim.* p. 272
 (1844).

Leptopteryx melaleuca, Wagler, *Syst. Av.*, *Leptopteryx*, sp. 1 (1827).

Ocypterus berardi, Bp. *C. R.* xxxviii. p. 538 (1854).

Artamus melaleucus, Gray, *P. Z. S.* 1859, p. 163; *id. Cat. B. Trop.*
Isl. Pacific Ocean, p. 23 (1859); *Finsch, P. Z. S.* 1877, p. 780;
Sharpe in Rowley's Orn. Misc. iii. p. 188 (1878); *Finsch, Rep.*
Voy. 'Challenger', *Zool.* ii. p. 55 (1881); *E. L. & L. C. Layard,*
Ibis, 1878, pp. 256, 273, 1880, p. 226, 1882, pp. 510, 543; *Tristr.*
Ibis, 1879, pp. 183, 192.

Artamus melanoleucus, Gray, *Hand-l. B.* i. p. 289, no. 4280 (1869).

Adult male. General colour above sooty brown; the whole of

- a.* ♀ ad. sk. Nu, Port de France, New Caledonia, June 25, 1858. J. Macgillivray, Esq. [C.]
- b.* ♂ ad. sk. Nu, May 13, 1858. J. Macgillivray, Esq. [C.]
- c.* ♂ ad. sk. Isle of Pines, New Caledonia, Oct. 3, 1853 (*J. Macgillivray*). Gould Coll.
- d.* ♀ ad. sk. Noumea, New Caledonia, June 1, 1877 (*E. L. Layard*). Tweeddale Coll.
- e.* ♀ ad. sk. Moindou, New Caledonia, Oct. 11, 1881 (*E. L. Layard*). Tweeddale Coll.
- f.* ♂ ad. sk. New Caledonia. Tweeddale Coll.
- g.* ♂ ad. sk. Api, New Hebrides. Voy. of H.M.S. 'Challenger.'
- h.* Ad. sk. Lifu, Loyalty Islands. Rev. S. J. Whitmee [P.]

4. *Artamus pelewensis*.

Artamus leucorhynchus, *Hartl. & Finsch*, *P. Z. S.* 1868, p. 116, 1872, p. 99; *Finsch*, *Journ. Mus. Godeffr.* viii. p. 18 (1875).

Artamus, sp., *Sharpe in Rowley's Orn. Misc.* ii. p. 182 (1878).

Artamus pelewensis, *Finsch*, *Journ. Mus. Godeffr.* Heft xii. p. 41 (1876); *id.* *P. Z. S.* 1877, p. 739; *Tweedd. Ibis*, 1878, p. 335.

Adult. Similar to *A. melanoleucus*, but blacker above, and with the whole of the sides of the face, neck, and throat black, as well as the fore neck. Total length 7.5 inches, culmen 0.85, wing 5.3, tail 2.6, tarsus 0.65.

Hab. Pelew Islands.

- a.* Ad. sk. Pelew Islands (*Cohen*). Tweeddale Coll.

5. *Artamus mentalis*.

Langrayen de Viti, *Hombr. & Jacq. Voy. Pôle Sud*, pl. 9. fig. 1 (1843).

Artamus mentalis, *Jard. Ann. & Mag. Nat. Hist.* xvi. p. 174, pl. viii. (1845); *Bp. Consp.* i. p. 344 (1850); *Cass. U. S. Expl. Exped., Birds*, p. 141 (1858); *Gray, List B. Trop. Isl. Pacif. Ocean*, p. 23 (1858); *Finsch & Hartl. Faun. Centralpolyn.* p. 84, tab. 1. fig. 5 (1867); *Gray, Hand-l. B.* i. p. 280, no. 4281 (1869); *Layard, P. Z. S.* 1875, p. 434; *id. Ibis*, 1876, p. 392; *Sharpe in Rowley's Orn. Misc.* iii. p. 189 (1878); *Ramsay, Proc. Linn. Soc. N. S. W.* vii. p. 113 (1882).

Ocypterus mentalis, *Peale, U. S. Expl. Exped.* 1848, p. 84, pl. 23. fig. 2; *Hartl. Arch. f. Naturg.* 1852, p. 98.

Artamus vitiensis, *Jacq. et Pucher. Voy. Pôle Sud, Zool.* iii. p. 73 (1853).

Adult male. Above smoky black, the head scarcely any darker; scapulars uniform with the back; lower rump and upper tail-coverts pure white; tail-feathers black, with a conspicuous spot of white at the end of the inner web; entire wing black; sides of face and throat black; hinder cheeks, lower throat, and remainder of under surface of body white, as well as the under wing-coverts and axillaries; sides of fore neck sooty brown; quills below dull ashy,

white towards the base of the inner web: "bill blue, black at tip; feet dark blue; iris brown" (*E. L. Layard*). Total length 7·2 inches, culmen 0·9, wing 5·05, tail 2·8, tarsus 0·7.

Adult female. Similar in plumage to the male. Total length 7·1 inches, culmen 0·9, wing 5·15, tail 2·35, tarsus 0·65.

Nestling. Coloured like the adults, but having the feathers of the upper surface fringed with white; the quills edged with white at the tip, the tail-feathers more broadly tipped.

Hab. Fiji Islands.

a, b. ♂ ♀ ad. sk.	Levuka, Fiji Islands, July 3, 1874 (<i>E. L. Layard</i>).	Tweeddale Coll.
c. ♀ ad. sk.	Levuka, Fiji Islands, June 25, 1874 (<i>E. L. Layard</i>).	Tweeddale Coll.
d. Pull. sk.	Levuka, Fiji Islands, August 27, 1874 (<i>E. L. Layard</i>).	Tweeddale Coll.
e. ♂ ad. sk.	Wakiaia, Fiji Islands, May 24, 1876 (<i>E. L. Layard</i>).	Tweeddale Coll.
f. ♂ ad. sk.	Wakiaia, Fiji Islands, Oct. 1880 (<i>Dr. Coppinger</i>).	Voy. H.M.S. 'Alert.'
g, h. ♂ ad. sk.	Rewa, Fiji Islands, Oct. 1874 (<i>E. L. Layard</i>).	Tweeddale Coll.
i. Ad. sk.	N'Dreketti, Fiji Islands.	E. L. Layard, Esq. [C.].
k, l. Ad. sk.	Taviuni, Fiji Islands (<i>Liardet</i>).	Salvin-Godman Coll.
m. Ad. sk.	Matuka, Fiji Islands.	Gould Coll.
n. ♂ ad. sk.	Island of N'Gau, Fiji Islands, Oct. 1855 (<i>Dr. Rayner</i>).	Voy. H.M.S. 'Herald.'
o. ♂ ad. sk.	Island of Ovalau, Fiji Islands, Aug. 1856 (<i>Dr. Rayner</i>).	Voy. H.M.S. 'Herald.'

6. *Artamus monachus*.

Artamus monachus, *Bp. Consp.* i. p. 343 (1850, ex *Temm. MSS.* in *Mus. Lugd.*); *Wall. Ibis*, 1860, p. 141; *id.* *P. Z. S.* 1862, p. 340; *Gray, Hand-l. B.* i. p. 280, no. 4272 (1869); *Walden, Trans. Z. S.* viii. p. 67, pl. vi. fig. 1 (1872); *Gould, B. New Guinea*, iv. pl. 21 (1878); *Sharpe in Rowley's Orn. Misc.* iii. p. 189 (1878); *Guillem. P. Z. S.* 1885, p. 553.

Artamus spectabilis, *Brügg. Ann. & Mag. Nat. Hist.* (5) i. p. 349 (1878).

7. *Artamus insignis*.

Artamus, sp., *Ramsay*, *Proc. Linn. Soc. N. S. W.* i. p. 371 (1876).
Artamus insignis, *Sclater*, *P. Z. S.* 1877, p. 101, pl. xv.; *Gould*, *B. New Guinea*, iv. pl. 20 (1878); *Sharpe* in *Rowley's Orn. Misc.* iii. p. 190 (1878); *Scl. P. Z. S.* 1878, p. 671; *Salvad. Ann. Mus. Civic. Genov.* xv. p. 39 (1879); *id. Orn. Papuasia*, ii. p. 172 (1881); *Finsch*, *Ibis*, 1881, p. 636.

Adult female (type of species). Entire head and nape, sides of face, and whole of the throat black; hind neck, interscapular region and scapulars, entire back, rump, and upper tail-coverts pure white; wings and tail jet-black, the tail-feathers very narrowly fringed with white along the inner web; fore neck and remainder of under surface of body pure white; under wing-coverts white, the outer lesser coverts jet-black; quills ashy below, white at the base of the inner web. Total length 7·3 inches, culmen 1, wing 5·65, tail 2·6, tarsus 0·8.

Hab. New Britain and New Ireland.

- | | | |
|--------------|---|---------------------------------------|
| a. ♀ ad. sk. | New Ireland, March 1876 (<i>Rev. G. Brown</i>). | Tweeddale Coll.
(Type of species.) |
| b. Ad. sk. | Spacious Bay, New Britain, Jan. 1878. | Rev. G. Brown [C.]. |

8. *Artamus fuscus*.

Artamus fuscus, *Vieill. N. Dict. d'Hist. Nat.* xvii. p. 297 (1817); *Gray*, *Gen. B.* i. p. 285 (1845); *Blyth*, *J. A. S. Beng.* xv. p. 299 (1846); *Gray*, *Cat. Mamm. etc. Nepal pres. Hodgs.* p. 98 (1846); *Blyth*, *Cat. B. Mus. As. Soc.* p. 199 (1849); *Bp. Conspect.* i. p. 344 (1850); *Horsf. & Moore*, *Cat. B. Mus. E.I. Co.* i. p. 161 (1854); *Cass. in Perry's Exped. Japan*, p. 238 (1856); *Gould*, *P. Z. S.* 1859, p. 151; *Jerd. B. Ind.* i. p. 441, no. 287 (1862); *Swinh. P. Z. S.* 1863, p. 287; *Beavan*, *P. Z. S.* 1865, p. 692; *Gray*, *Hand-l. B.* i. p. 289, no. 4270 (1869); *Godw.-Aust. J. A. S. B.* 1870, p. 100; *Swinh. Ibis*, 1870, p. 247; *id. P. Z. S.* 1871, p. 377; *Holdsw. P. Z. S.* 1872, p. 440; *Ball*, *Str. F.* 1874, p. 403; *id. Str. F.* 1875, p. 291; *Hume*, *t. c.* p. 102; *id. Nests and Eggs Ind. B.* p. 194 (1875); *Blyth & Wald. B. Burm.* p. 126 (1875); *Armstr. Str. F.* 1876, p. 321; *Hume*, *t. c.* p. 458, 1877, p. 30; *David & Oust. Ois. Chine*, p. 101 (1877); *Sharpe* in *Rowley's Orn. Misc.* iii. p. 191 (1878); *Hume & Davison*, *Str. F.* 1878, p. 223; *Cripps*, *Str. F.* vii. p. 273 (1878); *Ball*, *t. c.* p. 211; *Legge*, *B. Ceylon*, p. 666 (1879); *Hume*, *Str. F.* viii. p. 92 (1879); *Salvad. Ucc. Papuasia*, ii. p. 173 (1881); *Oates*, *B. Brit. Burm.* i. p. 396 (1883); *Taylor*, *Str. F.* x. p. 455 (1887); *Hume*, *Str. F.* xi. p. 103 (1888).

Ocypterus rufiventer, *Valenc. Ann. Mus.* vi. p. 25, pl. vii. fig. 1 (1820).

Leptopteryx rufiventer, *Wagler, Syst. Ar.*, *Leptopteryx*, sp. 3 (1827).

Artamus leucorhynchos, *M'Clell. P. Z. S.* 1839, p. 158 (*nec L.*).

Ocypterus leucorhynchos, *Jerd. Madr. Journ.* x. p. 237 (1839, *nec L.*).

Artamus brevipes, *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 70 (1877); *Tweedd. Ibis*, 1878, p. 385.

Adult male. Above dull ashy, the upper tail-coverts greyish white, forming a narrow transverse band; head and neck all round clearer grey; a very narrow frontal line and the lores blackish; upper part of the chin and fore part of cheeks shaded with blackish; remainder of under surface of body pale vinaceous ashy, the under tail-coverts whitish, freckled with ashy cross bars; under wing-coverts ashy white; wing dull slaty below, the quills blacker; tail black, tipped with ashy white: "bill clear pale blue, the tip and anterior half of the margins brownish; legs slate-colour; claws dark horn; mouth inside black in some, in others yellow, probably varying according to season; iris dark brown; eyelids plumbeous" (*E. W. Outes*). Total length 6·3 inches, culmen 0·8, wing 5·3, tail 2·3, tarsus 0·65.

Adult female. Similar to the male, but a little duller in colour. Total length 6·3 inches, culmen 0·75, wing 5·25, tail 2·25, tarsus 0·65.

Young. Similar to the adults, but having the bill dusky brown and the plumage duller, all the feathers of the back spotted or barred with ochreous brown at the ends; the quills similarly tipped with brown or whitish; the breast pale vinaceous, mottled with ashy bases to the feathers.

Hab. Ceylon and Southern Indian Peninsula as far as South Konkan, on the west coast; Himalayas from Naini Tal to Assam; Dacca and neighbourhood of Calcutta; throughout the Burmese countries to Cambodia, Cochin China, and even to Hainan and Macao.

<i>a, b.</i> Ad. sk.	Kandy, Ceylon.	A. White, Esq. [C.]
<i>c.</i> ♂ ad. sk.	Cotta, Ceylon, Nov. 10, 1878 (<i>Hart</i>).	Hume Coll.
<i>d.</i> ♂ ad. sk.	S. Ceylon, May 25, 1871 (<i>W.</i> <i>V. Legge</i>).	R. B. Sharpe, Esq. [P.]
<i>e.</i> ♂ ad.; <i>f, g, h.</i> ♀ ad. sk.	Ceylon, Dec. 1865 (<i>S. Chap-</i> <i>man</i>).	Tweeddale Coll.
<i>i, k.</i> ♂ ad. sk.	Ceylon, March 1866 (<i>S. Chap-</i> <i>man</i>).	Tweeddale Coll.
<i>l, m.</i> ♀ ad. sk.	Ceylon, April 1866 (<i>S. Chap-</i> <i>man</i>).	Tweeddale Coll.

<i>w.</i> ♂ ad. sk.	Cannanore, Oct. 9, 1882 (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>x.</i> Ad. sk.	Madras (<i>T. C. Jerdon</i>).	Gould Coll.
<i>y, z.</i> Ad. sk.	Madras.	Rev. H. H. Baber [P.].
<i>a'.</i> Imm. sk.	Coorg.	Tweeddale Coll.
<i>b'.</i> ♀ imm. sk.	Tipporkardu, Wynaad, May 25, 1881 (<i>W. Davison</i>).	Hume Coll.
<i>c'.</i> ♂ ad.; <i>d', e'.</i> ♂ ♀ juv. sk.	Karoli, Wynaad, May 1881 (<i>W. Davison</i>).	Hume Coll.
<i>f'.</i> ♂ ad.; <i>g'.</i> ♀ imm. sk.	Bandipur, Mysore, May 1881 (<i>W. Davison</i>).	Hume Coll.
<i>h'.</i> Ad. sk.	Mysore (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>i'.</i> ♂ ad. sk.	Conjecoda, Paulghat Dist., Oct. 29, 1868 (<i>A. G. R. Theobald</i>).	Hume Coll.
<i>k'.</i> ♂ ad. sk.	Vingorla, S. Konkan, Jan. 13, 1880 (<i>G. Vidal</i>).	Hume Coll.
<i>l'.</i> Ad. sk.	Godra, Panch Mehals, Sept. 1878.	Hume Coll.
<i>m'-o'.</i> Ad. sk.	Naini Tal.	Pinwill Coll.
<i>p'.</i> Ad. sk.	Naini Tal (<i>S. Pinwill</i>).	Tweeddale Coll.
<i>q'-s'.</i> Ad. sk.	Nepal.	Hodgson Coll.
<i>t', u'.</i> Ad. sk.	Nepal (<i>B. H. Hodgson</i>).	India Museum.
<i>v', w'.</i> Ad. sk.	Native Sikhim, July 1874 (<i>L. Mandelli</i>).	Hume Coll.
<i>x'.</i> Ad. sk.	Native Sikhim, Oct. 1876 (<i>L. Mandelli</i>).	Hume Coll.
<i>y'.</i> Ad. sk.	Lower Hills, Sikhim, Feb. 1873 (<i>L. Mandelli</i>).	Hume Coll.
<i>z'.</i> Ad. sk.	Sikhim, March 1873 (<i>L. Mandelli</i>).	Hume Coll.
<i>a-γ.</i> Ad. sk.	Sikhim, April 1873 (<i>L. Mandelli</i>).	Hume Coll.
<i>δ.</i> Ad. sk.	Sikhim, May 1873 (<i>L. Mandelli</i>).	Hume Coll.
<i>ε, ζ.</i> Ad. sk.	Sikhim.	Hume Coll.
<i>θ.</i> Ad. sk.	Darjeeling, Feb. 1873.	Hume Coll.
<i>ι.</i> Ad. sk.	Darjeeling (<i>Eccles</i>).	Salvin-Godman Coll.
<i>κ.</i> Ad. sk.	Darjeeling.	C. B. Wharton, Esq. [P.].
<i>λ.</i> Ad. sk.	Buxa Doars, Feb. 1878 (<i>L. Mandelli</i>).	Hume Coll.
<i>μ, ν.</i> Ad. sk.	Behar.	Hodgson Coll.
<i>ξ, ο, π.</i> ♂ ad.; <i>ρ.</i> ♀ ad.; <i>σ, τ.</i> Ad. sk.	Mirzapur Dist., March 1869 (<i>R. Thompson</i>).	Hume Coll.
<i>υ.</i> ♂ ad.; <i>φ, χ.</i> ♀ ad. sk.	Calcutta, Jan. 1873.	Hume Coll.
<i>ψ.</i> Ad. sk.	Dacca (<i>Tytler</i>).	India Museum.
<i>ω, α'.</i> Ad. sk.	Dacca.	Hume Coll.
<i>β'.</i> ♂ ad. sk.	Faridpur, Nov. 25, 1877 (<i>J. R. Cripps</i>).	Hume Coll.
<i>γ'.</i> ♀ ad. sk.	Khowang, Dibrughur, March 21, 1879 (<i>J. R. Cripps</i>).	Hume Coll.
<i>δ'.</i> ♂ ad. sk.	Tippook, Assam, March 13, 1877 (<i>J. Cockburn</i>).	Hume Coll.

ε'. ♀ ad. sk.	Sadhya, Assam, June 1, 1877 (<i>J. Cockburn</i>).	Hume Coll.
ζ, η'. ♂ ♀ ad. sk.	Shillong, July 24, 1877 (<i>J. C.</i>).	Hume Coll.
θ, ι'. ♂ ♀ ad. sk.	Shillong, June 1875 (<i>A. W.</i> <i>Chennell</i>).	Tweeddale Coll.
κ', λ. Ad. sk.	Mymensing.	Tweeddale Coll.
μ'. ♂ ad. sk.	N. Khasia Hills, Dec. 1876 (<i>A. W. Chennell</i>).	Tweeddale Coll.
ν'. Ad. sk.	Cachar.	Hume Coll.
ξ, ο'. ♂ ad. ; π'. ♀ ad. sk.	Lakhipur, Cachar, Jan. 31, 1881 (<i>A. O. H.</i>).	Hume Coll.
ρ'. ♂ ad. sk.	Soongnoo, Manipur, March 28, 1881 (<i>A. O. H.</i>).	Hume Coll.
σ', τ', υ'. ♂ ad. sk.	Kokshin-koonoo, Manipur, April 2, 1881 (<i>A. O. H.</i>).	Hume Coll.
φ', χ'. Ad. sk.	Karen Hills, Jan. 1875 (<i>R. G.</i> <i>W. R.</i>).	Tweeddale Coll.
ψ'. Ad. sk.	Karen Hills, Nov. 1874 (<i>R.</i> <i>G. W. R.</i>).	Tweeddale Coll.
ω'. ♀ juv. sk.	Tonghoo (<i>R. G. W. R.</i>).	Tweeddale Coll.
α. ♀ ad. sk.	Tonghoo, Feb. 26, 1874 (<i>R.</i> <i>G. W. R.</i>).	Tweeddale Coll.
β. ♀ ad. sk.	Tonghoo, March 8, 1874 (<i>R.</i> <i>G. W. R.</i>).	Tweeddale Coll.
γ. ♂ ad. ; δ, ε. ♀ ad. sk.	Tonghoo, April 1874 (<i>R. G.</i> <i>W. R.</i>).	Tweeddale Coll.
ζ. ♀ ad. sk.	Tonghoo, Oct. 19, 1875 (<i>R.</i> <i>G. W. R.</i>).	Tweeddale Coll.
η. ♀ ad. sk.	Tonghoo, Nov. 13, 1874 (<i>R.</i> <i>G. W. R.</i>).	Tweeddale Coll.
θ. Ad. sk.	Tonghoo Hills, Nov. 1874 (<i>R.</i> <i>G. W. R.</i>).	Tweeddale Coll.
ι, κ. ♂ ad. sk.	Akyab, March 1876 (<i>J. Arm-</i> <i>strong</i>).	Hume Coll.
λ. ♀ ad. sk.	Elephant Point, Dec. 9, 1875 (<i>J. Armstrong</i>).	Hume Coll.
μ. ♂ ad. sk.	Saddle Island, April 16, 1876 (<i>J. Armstrong</i>).	Hume Coll.
ν, ο. ♂ ♀ ad. sk.	Pegu, April 17, 1881.	Oates Coll.
ρ. Ad. sk.	Thayetmyo, Dec. 1872.	Hume Coll.
σ. ♀ ad. sk.	Thayetmyo, Sept. 1874 (<i>R. G.</i> <i>W. R.</i>).	Tweeddale Coll.
τ. ♀ ad. sk.	Amherst, Tenasserim, Feb. 14.	Hume Coll.

9. *Artamus superciliosus*.

Ocypterus superciliosus, Gould, *P. Z. S.* 1836, p. 142; *id. Syn. B. Austr.* part i. (1837).

Artamus superciliosus, Gray, *Gen. B.* i. p. 285 (1845); *Reichenb. Vög. Neuhol.* p. 169 (1848); Gould, *B. Austr.* fol. ii. pl. 32 (1848); Blyth, *Cat. B. Mus. As. Soc.* p. 199 (1849); *Bp. Consp.* i. p. 344 (1850); *Cab. Mus. Hein.* Th. i. p. 169 (1850); Pelz. *Reis. Novara, Vög.* p. 82 (1865); Müll. *P. Z. S.* 1869, p. 279; Gray, *Hand-l. B.* i. p. 289, no. 4278 (1869); Ramsay, *Proc. Linn. Soc. N. S. W.* iii. p. 179 (1878); Sharpe in Rowley's *Orn. Misc.* iii. p. 193 (1878); Ramsay, *Tab. List Austr. B.* p. 3 (1888).

Adult male. Above slaty grey, the rump and upper tail-coverts ashy; wing ashy, all the quills tipped with black; tail-feathers ashy, tipped with white and forming a terminal band; a broad white eyebrow produced from the fore part of the eye to the nape; lores, sides of face, and entire throat slaty black, the latter clearer slate-colour below; remainder of under surface of body vinous chestnut; thighs clear ashy grey; under wing-coverts white, the edge of the wing slaty; quills below pale ashy, greyer along the inner web: "bill light blue at base, black at tip; feet dark lead-colour; iris nearly black" (*J. Gould*). Total length 7·5 inches, culmen 0·75, wing 5·05, tail 2·85, tarsus 0·8.

Adult female. Similar to the male, but paler; the back browner, and the head ashy not blackish; under surface of body paler vinaceous, and the whole of the throat slaty grey. Total length 4·75 inches, tail 2·8, tarsus 0·8.

Young. Differs from the adults. General colour ashy, all the feathers narrowly streaked with white; quills tipped with white; tail-feathers slightly edged with white at the ends; lores and ear-coverts dusky slate-colour; under surface of body ashy, the feathers streaked with whitish, the abdomen mottled with dusky, the feathers being fringed with this colour.

Hab. The greater part of Australia, but not found in the western or northern parts of the continent.

a, b. ♂ ♀ ad. sk.	Australia.	Sir T. Mitchell [P.].
c, d. ♂ ♀ ad. sk.	S. Australia.	Sir G. Grey [P.].
e-g. Ad. sk.	New South Wales (<i>J. T. Cockerell</i>).	Salvin-Godman Coll.
h. ♂ ad.; i. ♀ juv. sk.	Homebush, N. S. W., Jan. 1877.	Sydney Museum.
k. ♀ ad. sk.	Sydney, Nov. 1876.	Sydney Museum.
l. ♂ ad. sk.	Bankstown, N. S. W., Dec. 1876.	Sydney Museum.
m. ♀ ad. sk.	Moreton Bay, Oct. 1850 (<i>F. Strange</i>).	Gould Coll.
n. ♀ ad. sk.	Queensland.	Tweeddale Coll.
o. ♂ ad. sk.	"N.W. Australia."	Gould Coll.

10. *Artamus personatus*.

Ocypterus personatus, Gould, *P. Z. S.* 1840, p. 149.

Artamus personatus, Gray, *Gen. B.* i. p. 285 (1845); Gould, *B. Austr.* fol. ii. pl. 31 (1848); *Reichenb. Vög. Neuholl.* p. 170 (1848); *Bp. Consp.* i. p. 344 (1850); *Cab. Mus. Hein. Th.* i. p. 208 (1850); Gould, *Handb. B. Austr.* i. p. 150 (1865); Pelz. *Reis. Novara, Vög.* p. 82 (1865); Gray, *Hand-l. B.* i. p. 289, no. 4277 (1869); Ramsay, *Proc. Linn. Soc. N. S. W.* ii. p. 179 (1878); Sharpe, in *Rowley's Orn. Misc.* iii. p. 195 (1878); Ramsay, *Tab. List Austr. B.* p. 3 (1888).

Adult male. Above dark slate-colour, the lesser back and rump more grey; wing-coverts like the back; quills blackish slate-colour, narrowly fringed with white at the ends, and all subterminally shaded with grey; quills grey, tipped with white forming a broad band; forehead and lores, entire sides of face, and throat black, the crown also shaded with black; remainder of the body below ashy, with an indistinct collar on the throat continued from the ear-coverts; thighs ashy; under wing-coverts and axillaries white; quills ashy below, blackish towards the ends, white towards the base of the inner web: "bill blue at base, becoming black at tip; legs and feet mealy bluish grey; iris blackish brown" (*J. Gould*). Total length 7·2 inches, culmen 0·75, wing 4·0, tail 3·15, tarsus 0·8.

Adult female. Similar to the male, but duller in colour: back and wings browner; under surface of body brownish ash, with an indistinct collar on the lower throat of ashy grey; sides of face and throat dull slaty grey. Total length 7 inches, culmen 0·75, wing 4·85, tail 3·05, tarsus 0·75.

Hab. The whole of Australia, except the northern parts.

a, b. ♂ ad.; c. ♀ ad. sk.	S. Australia.	Sir G. Grey [P.]
d, e. Ad. sk.	S. Australia.	Gould Coll.
f, g. Ad.; h. Imm. sk.	Victoria (<i>J. T. Cockerell</i>).	Salvin-Godman Coll.
i. Ad. sk.	Interior of Australia.	Capt. Sturt [P.]
k, l. Ad.; m, n. Imm. sk.	S. Queensland.	Tweeddale Coll.
o. ♂ ad. sk.	Between the Avon and Salt Rivers, W. Australia.	Gould Coll.

Ocypterus cinereus, *Valenc. Mém. Mus.* vi. p. 22, pl. ix. fig. 2 (1820).

Leptopteryx cinereus, *Wagler, Syst. Av.*, *Leptopteryx*, sp. 4 (1827).

Adult male. Above brown, with the head slightly paler; eye-brow and ear-coverts paler brown; under surface of body ashy brown; a narrow frontal line, lores, eyelid, cheeks, and fore part of ear-coverts and throat blackish; entire wing dull ashy, the feathers externally with a narrow pale margin; lower back and upper tail-coverts black; two centre tail-feathers black, the rest black, broadly tipped with white; vent and under tail-coverts blackish, the latter with white ends; thighs externally white, blackish on their inner aspect; under wing-coverts and axillaries as well as the inner edge of the quills white: "bill bright greyish blue at base, black at tip; legs and feet greenish grey; iris dark blackish brown" (*J. Gould*). Total length 7·5 inches, culmen 0·75, wing 4·95, tail 3, tarsus 0·85.

Adult female. Like the male.

Young. Upper surface of the head and body mottled with ashy brown, the wings grey; rump and upper tail-coverts black, mottled with ashy white; the upper wing-coverts and scapulars margined with ashy brown, and the tips of all the quills with a distinct margin of white: "bill brown" (*Ramsay*).

Hab. Western Australia.

a. Ad. sk.

Australia.

Sir T. Mitchell [P.]

12. *Artamus hypoleucus*.

Artamus albiventris (*nec Ocypterus albiventer*, *Less. Traité*, p. 370), *Gould, P. Z. S.* 1847, p. 31; *id. B. Austr.* fol. ii. pl. 30 (1848); *Bp. Consp.* i. p. 344 (1850); *Gould, Handb. B. Austr.* i. p. 149 (1865); *Ramsay, P. Z. S.* 1868, p. 383; *Gray, Hand-l. B.* i. p. 289, no. 4276 (1869); *Masters, Proc. Linn. Soc. N. S. W.* i. p. 48 (1877); *Castelnau & Ramsay, t. c.* p. 380 (1877); *Ramsay, op. cit.* ii. p. 179 (1878); *Sharpe in Rowley's Orn. Misc.* iii. p. 196 (1878); *Ramsay, Tab. List Austr. B.* p. 3 (1883).

Adult. Similar to *A. cinereus*, but distinguished by its white under tail-coverts. Total length 6·3 inches, culmen 0·8, wing 4·9, tail 2·55, tarsus 0·85.

Hab. Interior of Victoria to Queensland and Gulf of Carpentaria.

a. Ad. sk.

Interior of Australia.

Gould Coll.

13. *Artamus melanops*.

Artamus melanops, *Gould, P. Z. S.* 1865, p. 198; *id. Handb. B. Austr.* i. p. 149 (1865); *id. B. Austr.* fol. *Suppl.* part v. (1869); *Gray, Hand-l. B.* i. p. 289, no. 4283 (1869); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 179 (1878); *Sharpe in Rowley's Orn. Misc.* iii. p. 197 (1878); *Ramsay, Tab. List Austr. B.* p. 3 (1883).

Adult. Similar to *A. cinereus*, but smaller; face with a greater amount of black on the sides, and the under tail-coverts narrowly tipped with white. Total length 7 inches, culmen 0·7, wing 4·9, tail 2·7, tarsus 0·8.

Hab. Nearly the whole of Australia excepting the western portions.

Hab. South Australia, Victoria to Cape York.

a. Ad. sk.	Somerset, Cape York.	Tweeddale Coll.
b. Ad. sk.	St. A'Beckett's Pool, lat. 28° 30', Aug. 23, 1868 (<i>A. White</i>).	Gould Coll. (Type of species.)
c-g. Ad. sk.	N. Australia.	Gould Coll.

14. *Artamus perspicillatus*.

Artamus perspicillatus, *Bp. Conspectus* i. p. 344 (1850, ex *Temm. MSS. in Mus. Lugd.*); *Wall. Ibis*, 1861, p. 348; *id. P. Z. S.* 1863, p. 485; *Gray, Hand-l. B. i.* p. 209, no. 4271 (1869); *Sharpe in Rowley's Orn. Misc.* iii. p. 186 (1878).

Ocypterus albovittatus, *Kittl. Kùpf. Vög.* p. 23, pl. xxx. fig. 2 (1832).

Adult male. Above ashy brown; head all round and sides of neck, as well as the under surface of the body, clearer ashy; chin itself, lores, and eyelid black; lower rump and upper tail-coverts black; tail-feathers black, broadly tipped with white; entire wing dark ashy grey, the quills blackish towards the ends, with a narrow terminal edging of white; flanks rather duller ashy; thighs clearer ashy; under tail-coverts black; under wing-coverts and axillaries white; quills below dull ashy, white towards the base of the inner web. Total length 8 inches, culmen 0·85, wing 5·05, tail 3·1, tarsus 0·9.

Adult female. Scarcely distinguishable from the male. Total length 8 inches, culmen 0·95, wing 5·2, tail 3·2, tarsus 0·25.

Young. Similar to the adults, but with the edges of the feathers more or less white; under surface of body more grey, the feathers being tipped with the latter colour.

Hab. Lower

two centre tail-feathers entirely black, the rest black, broadly tipped with white; entire wing ashy, the quills subterminally blackish, very narrowly edged with white at the ends; lower abdomen and under tail-coverts black, the longest of the latter white at the tips; thighs clear ashy; under wing-coverts and axillaries and inner edge of quills white. Total length 7 inches, culmen 0·7, wing 4·65, tail 3, tarsus 0·7.

Adult female. Similar to the male, but a little browner. Total length 7·5 inches, wing 4·75, tail 3, tarsus 0·7.

Young. Above brown, the feathers of the head and back streaked down the centre and tipped with ochreous brown; the feathers of the lower back and rump as well as the upper tail-coverts margined with ochraceous; wing-coverts margined in the same way as the back; quills more broadly tipped with white; under surface of body ashy, the under tail-coverts tipped with pale brown.

Hab. North-western Australia.

<i>a.</i> ♀ ad. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
<i>b, c.</i> Ad.; <i>d, e.</i> Juv. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
		(Types of species.)
<i>f, g.</i> ♂ ♀ juv.;	Fitzroy River, N.W. Australia	Capt. Bowyer Bower
<i>h.</i> ♂ ad. sk.	(<i>T. H. Bowyer Bower</i>).	[P.].

16. *Artamus sordidus*.

Sordid Thrush, *Lath. Gen. Syn. Suppl.* ii. p. 186 (1801).

Turdus sordidus, *Lath. Ind. Orn. Suppl.* p. xliii (1801).

Artamus lineatus, *Vieill. N. Dict. d'Hist. Nat.* xvii. p. 297 (1817).

Ocypterus albovittatus, *Valenc. Mém. Mus.* vi. p. 23, pl. viii. (1820); *Less. Traité*, p. 37, pl. 44. fig. 2 (1831); *Gould, Syn. B. Austr.* part 1 (1837).

Artamus albovittatus, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 210 (1826).

Leptopteryx albovittata, *Wagler, Syst. Av., Leptopteryx*, sp. 5 (1827).

Artamus sordidus, *Gray, Gen. B.* i. p. 285 (1845); *Gould, B. Austr.* fol. ii. pl. 27 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 200 (1849); *Reichenb. Vög. Neuhol.* p. 168 (1848); *Bp. Consp.* i. p. 344 (1850); *Cab. Mus. Hein. Th.* i. p. 208 (1850); *Gould, Handb. B. Austr.* i. p. 143 (1865); *Ramsay, Ibis*, 1866, p. 327; *Gray, Hand-l. B.* i. p. 289, no. 4274 (1869); *Müller, P. Z. S.* 1869, p. 279; *Ramsay, P. Z. S.* 1875, p. 584; *id. Proc. Linn. Soc. N. S. W.* ii. p. 179 (1878); *Sharpe in Rowley's Orn. Misc.* iii. p. 199 (1878); *Ramsay, Tab. List Austr. B.* p. 3 (1888).

Adult male. General colour above chocolate-brown, the lower back and rump darker, the upper tail-coverts slightly blacker; lores and fore part of cheeks dusky; under surface of body chocolate-brown, the lower abdomen and flanks rather more rufescent; under tail-coverts black; under wing-coverts white; wing slaty black; quills dark ashy, the primaries externally white; tail-feathers black, tipped with white, the two centre ones entirely black, with

only the inner web of the outer feather white; quills below dull ashy: "bill blue with a black tip; feet nearly lead-colour; iris dark brown" (*J. Gould*). Total length 7 inches, culmen 0·7, wing 5·1, tail 3·1, tarsus 0·75.

Adult female. Similar to the male, but slightly smaller. Total length 6·2 inches, culmen 0·65, wing 4·9, tail 2·6, tarsus 0·7.

Young. Differs from the adults in having more distinct white edges to the ends of the quills, and in being streaked with ashy whitish both above and below.

Hab. Tasmania and the greater part of Australia.

a, b. Ad.; c. Juv. sk.	Tasmania.	Ronald Gunn, Esq. [P.]
d, e. ♂ ♀ ad.; f. Ad. sk.	Tasmania.	Antarctic Expedition.
g, h. Ad. sk.	Australia.	Gould Coll.
i. Ad. sk.	Australia.	Sir D. Cooper [P.]
k, l. Ad. sk.	New South Wales.	Hume Coll.
m. ♂ ad. sk.	S. Australia (<i>J. Gould</i>).	Sir G. Grey [P.]
n. Ad. sk.	Queensland (<i>F. Strange</i>).	Tweeddale Coll.
o, p. Ad. sk.	Brisbane (<i>J. T. Cockerell</i>).	Salvin-Godman Coll.
q. ♀ ad. sk.	Moreton Bay, June 21 (<i>F. Strange</i>).	Gould Coll.
r. Ad. sk.	Somerset, Cape York.	Tweeddale Coll.
s. ♀ imm. sk.	Perth, Western Australia.	Gould Coll.

17. *Artamus minor*.

Artamus minor, Vieill. *N. Dict. d'Hist. Nat.* xvii. p. 298 (1817); Gray, *Gen. B.* i. p. 285 (1845); Gould, *B. Austr.* fol. ii. pl. 28 (1848); Reichenb. *Vog. Neuhol.* p. 168 (1848); Bp. *Consp.* i. p. 344 (1850); Gould, *Handb. B. Austr.* i. p. 146 (1865); Ramsay, *Ibis*, 1866, p. 327; Gray, *Hand-l. B. i.* p. 290, no. 4285 (1869); Ramsay, *P. Z. S.* 1875, p. 584; *id.* *Proc. Linn. Soc. N. S. W.* ii. p. 179 (1878); Masters, *t. c.* p. 270 (1878); Sharpe in *Rosley's Orn. Misc.* iii. p. 201 (1878); Ramsay, *Proc. Linn. Soc. N. S. W.* vii. p. 407 (1883); *id.* *op. cit.* (2) i. p. 1087 (1886), ii p. 107 (1887); *id.* *Tub. List Austr. B.* p. 3 (1888).

Adult female. Similar to the male. Total length 5·7 inches, culmen 0·5, wing 3·85, tail 2·25, tarsus 0·5.

Young. Similar to the adults, but having the feathers spotted with ochre; the under surface of the body barred with sandy buff; the terminal spots on the tail smaller and tinged with greyish.

Hab. Nearly the whole of Australia, excepting Cape York, Victoria, and Interior province.

<i>a, b.</i> Ad. sk.	Australia.	Gould Coll.
<i>c.</i> Ad. sk.	Australia.	Sir T. Mitchell [P.].
<i>d.</i> Juv. sk.	New South Wales.	J. Gould, Esq. [C.].
<i>e.</i> Ad. sk.	South Australia (<i>J. T. Cockerell</i>).	Salvin-Godman Coll.
<i>f, g.</i> Ad. sk.	Queensland.	Tweeddale Coll.
<i>h.</i> ♀ ad. sk.	Fitzroy River, N.W. Australia (<i>T. H. Bowyer Bower</i>).	Capt. Bowyer Bower [P.].
<i>i.</i> Ad.; <i>k, l.</i> Juv. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
<i>m.</i> Ad. sk.	Peron's Peninsula, Shark Bay, May 1858 (<i>Dr. Rayner</i>).	Voy. H.M.S. 'Herald.'

2. PSEUDOCHELIDON.

Pseudochelidon, *Hartl. Ibis*, 1861, p. 322 *Type.*
P. eurystomina.

Range. Confined to West Africa.

1. *Pseudochelidon eurystomina.*

Pseudochelidon eurystomina, *Hartl. Ibis*, 1861, p. 322, pl. xi.; *Gray, Hand-l. B. i.* p. 290, no. 4292 (1869).

Adult. Greenish black above with an ashy gloss; wings and tail slaty black; head all round purplish black, as well as the under surface of the body, which is slightly more ashy black on the abdomen; thighs black, ashy whitish at the ends; under wing-coverts and axillaries dull ashy brown; quills dusky below, ashy brown along the inner webs. Total length 5·7 inches, culmen 0·5, wing 4·85, tail 1·85, tarsus 0·6.

Hab. Gaboon.

<i>a.</i> Ad. sk.	Gaboon.	M. Verreaux.
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Family II. STURNIDÆ.

Key to the Subfamilies.

- A. Hind claw stronger than claw of middle toe . . . *STURNINÆ*.
 B. Hind claw not so powerful as that of the middle toe *BUPHAGINÆ*.

Subfamily I. STURNINÆ.

Key to the Genera.

- a. Nasal aperture elongated, with a distinct superior membrane, which is always swollen; outstretched feet generally reaching to the end of the tail, in the skin.
 a'. Bill very long and pointed; culmen nearly straight; genys flattened and broad for its entire length; culmen and tarsus about equal in length.
 a''. Wing long and pointed; the difference between the tip of the primaries and the tip of the secondaries greater than the tarsus.
 a³. Nasal membrane bare, with no superior plumelets on the operculum; no bare space round the eye; bill without any distinct pattern, and as high as it is broad at the nostrils 1. *STURNUS*, p. 26.
 b¹. Nasal membrane with tiny plumelets reaching to anterior edge of nasal fossa; no bare space round the eye; bill generally of different colours, with a black base as a rule to lower mandible, narrower than it is broad at the nostril; tail rounded 2. *POLIOPSAR*, p. 40.
 b''. Wing more rounded, the difference between the tip of the primaries and the tip of the secondaries less than the tarsus.

- e'*. Without any peculiar eyebrow of wax-like plumelets; plumage ordinary.
- e''*. Bastard-primary moderate or very small, not exceeding the primary-coverts.
- h*². Tail not exceeding the wing in length; head bare, with a narrow median line of feathers 12. *SARCOPE*, p. 96.
- i*². Wing longer than tail; crown feathered; throat feathered, never entirely bare, though sometimes the chin may be.
- d*¹. Tail nearly square, the centre feathers scarcely exceeding the outer ones.
- a*¹. Head with ornamental yellow lappets; nostrils with dense feathers 13. *MAINATUS*, p. 98.
- b*¹. With no lappets; region of the eye and eyebrow and chin bare 14. *MINO*, p. 111.
- c*¹. With no lappets; a bare patch behind the eye.
- a*⁴. Nostrils exposed, the frontal feathers not extending in front of the line of the nostrils 15. *MELANOPYRREUS*, [p. 113.]
- b*⁴. Nostrils completely hidden, the feathers of the forehead recurved and produced in front 16. *AMPELICEPS*, p. 115.
- d*³. With no lappets and no bare places on the head and throat.
- c*³. Bill elongated, the culmen about the same length as the tarsus.
- a*¹. Secondaries with long filamentous appendages near the base of the outer web of secondaries 17. *PSAROGLOSSA*, p. 117.
- b*¹. Secondaries without filamentous appendages 18. *ILARTILAUDIUS*, p. 120.

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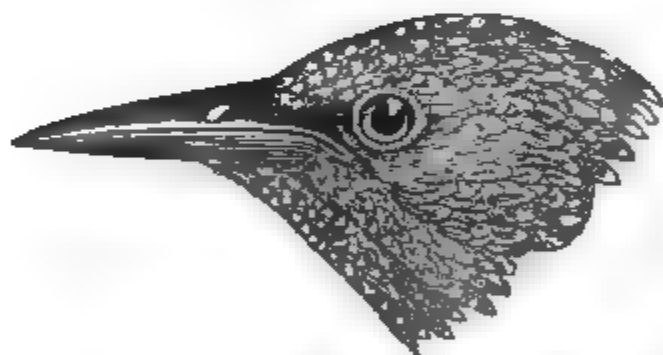
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- there just reaching to the
hinder part of the nasal
opening 32. HAGIOPSAR, p. 168.
- k⁴. Tarsus longer than culmen.
- l⁷. Culmen longer than hind
toe and claw 33. PYRRHOCEIRA,
[p. 169.
- k⁵. Culmen less than hind
toe and claw.
- α⁸. Tail nearly square and
shortened; under tail-
coverts falling short of
end of tail by no more
than length of tarsus 34. LAMPROCOLIUS, p. 170.
- β⁹. Tail strongly gradua-
ted; under tail-coverts
falling short of end
of tail by more than
length of tarsus 36. HETEROPSAR*, p. 185.
- π³. Outstretched feet reaching to end
of tail 37. SPREO, p. 187.
- γ⁶. With a broad eyebrow of peculiar wax-
like feathers 38. ENODES, p. 192.
- d. Nasal aperture exposed and situated in a
bony groove; wax-like crimson appen-
dages to the rump and upper tail-coverts 39. SCISSIROSTRUM, p. 193.

1. STURNUS.

Sturnus, Linn. Syst. Nat. i. p. 291 (1766) Type.
S. vulgaris.



Head of *Sturnus vulgaris*, to show bare nostrils.

- b'''*. Breast bronzy or coppery green; flanks
 bronzy green; head green *indicus*, p. 35.
b''. Wing-coverts violet or purple, not green
 or bluish green; head purple; throat
 purple *poltoratzkii*, p. 36.
c''. Wing-coverts bright steel-green, exter-
 nally reddish purple; head dark green;
 throat green *caucasicus*, p. 37.
b'. Scapulars reddish or bluish purple, not green.
d''. Rump and upper tail-coverts purplish,
 with steel-blue or steel-green reflexions;
 mantle and back steel-green or bluish
 green; abdomen dark purple; flanks
 bronzy purple *purpurascens*, p. 37.
e''. Rump and upper tail-coverts reddish
 purple; back reddish purple or washed
 slightly with steel-blue, but never with
 green.
c'''. Back washed with purplish blue; ab-
 domen dull reddish or bronzy purple. *porphyronotus*, p. 38.
d'''. Back reddish purple, with no shade of
 purplish blue.
c⁴. Sides of body bronzy green; abdo-
 men coppery green *minor*, p. 39.
d⁴. Sides of body bluish green *vulgaris*, p. 27.
b. Head and back uniform *unicolor*, p. 39.

1. *Sturnus vulgaris*.

The Starling, *Albin*, *N. H. Birds*, i. p. 38, pl. 40 (1738).

L'Étourneau, *Briss. Orn.* ii. p. 439 (1760); *Monb. Hist. Nat. Ois.*
 iii. p. 176, pl. 15 (1775).

Sturnus vulgaris, *Linn. Syst. Nat.* i. p. 290 (1766); *Pall. Zoogr.*
Rosso-Asiat. i. p. 418 (1811, pt.); *Temm. Man. Orn.* i. p. 132
 (1820); *Naum. Vög. Deutschl.* ii. p. 187, pl. 62 (1822); *Roux, Orn.*
Prov. pl. 128 (1825); *Werner, Atlas, Omnivores*, pl. 19 (1827);
Gould, B. Eur. iii. pl. 210 (1837); *Bp. Comp. List B. Eur. & N.*
Amer. p. 28 (1838); *Schl. u. Susem. Vög. Eur.* pl. 20 (1840);
Keys. u. Blas. Wirb. Eur. p. 170 (1840); *Nordm. in Démid. Voy.*
Russ. Mérid. iii. p. 122 (1840); *Selys-Longch. Faune Belge*, p. 170
 (1842); *Yarr. Brit. B.* ii. p. 43 (1843); *Schl. Rev. Crit.* p. lvii
 (1844); *Gray, Gen. B.* ii. p. 337 (1847); *Thomps. B. Irel.* i. p. 284
 (1849); *Bp. Consp.* i. p. 421 (1850); *Kjærbo. Danm. Fugle*, pl. 12.
 fig. 4 (1852); *id. t. c. Suppl.* pl. 5. figs. 1, 2 (1858); *Schl. Vog.*
Nederl. p. 284, pl. 145; *Hewits. Eggs Brit. B.* i. p. 216, pl. lv.
 fig. 1 (1856); *Sunder. Sv. Fogl.* pl. 18. figs. 5, 6 (1856); *Jaub. et*
Barth.-Lapomm. Rich. Orn. p. 106 (1859); *Tristr. Ibis*, 1859,
 pp. 33, 293; *E. C. Taylor, t. c.* p. 149; *Linderm. Vög. Griechenl.*
 p. 73 (1860); *Powys, Ibis*, 1860, p. 136; *Naum. Vög. Deutschl.*
 Anhang, Taf. 351. fig. 2 (1860); *Schl. Dier. Nederl. Vog.* pl. 14.
 fig. 5 (1861); *Reinh. Ibis*, 1861, p. 7; *Godman, t. c.* p. 85; *Gray,*
List Brit. B. p. 91 (1863); *Gould, B. Gt. Br.* iii. pls. 53, 54
 (ad., 1868), pl. 74 (juv., 1874); *Wright, Ibis*, 1864, p. 56; *Sper-*
ling, t. c. p. 276; *More, Ibis*, 1865, p. 131; *Bettoni, Ucc. Nidif.*
Lomb. i. tav. 28 (1865-70); *Godm. Ibis*, 1866, p. 98; *Baird, Ibis*,
 1867, p. 281; *Drake, t. c.* p. 428; *Degl. et Gerbe, Orn. Eur.* i.
 p. 233 (1867); *Loche, Expl. Sci. Algér., Ois.* i. p. 125 (1867); *Smith,*
Ibis, 1868, p. 446; *Borygr. Vogelf. Norddeutshl.* p. 84 (1869);

- Dodert. Avif. Sicil.* p. 70 (1869); *Kaulem. Onno Vog.* i. pl. 29 (1869); *Gray, Hand-l. B.* ii. p. 21, no. 6308; *Godm. Azores*, p. 30 (1870); *Elwes & Buckley, Ibis*, 1870, p. 192; *Hutton, t. c.* p. 397; *Frilech, Vog. Eur.* pl. 27. figs. 1, 3 (1870); *Salvad. Faun. Ital., Ucc.* p. 167 (1871); *Saunders, Ibis*, 1871, p. 220; *Gurney, t. c.* p. 294; *R. Gray, B. West Scott.* p. 157 (1871); *Harting, Handb. Brit. B.* p. 30 (1872); *Godm. Ibis*, 1872, p. 220; *Brooke, Ibis*, 1873, p. 247; *Durnf. Ibis*, 1874, p. 396; *Dresser, B. Eur.* iv. p. 406, pls. 246, 247 (1874); *Baird, Brew., & Ridgw. Hist. N. Amer. B.* ii. p. 229 (1874); *Irby, B. Gibr.* p. 190 (1875); *Fallon, Ois. Belg.* p. 29 (1875); *Blanf. East. Persia*, ii. 206 (1876, pt.); *C. B. Wharton, Ibis*, 1876, p. 24; *Newt. ed. Yarr. Brit. B.* ii. p. 228 (1877); *Dubois, Vertébr. Faun. Belg., Ois.* pl. 66 (1878); *Danf. Ibis*, 1878, p. 25; *B. O. U. List Brit. B.* p. 66 (1883); *Irby, Ibis*, 1883, p. 184; *Chapman, Ibis*, 1884, p. 93; *Clarke, t. c.* p. 143; *Saunders, t. c.* p. 378; *Seebohm, Hist. Brit. B.* ii. p. 12 (1884); *Tristr. Faun. & Flor. Palest.* p. 73 (1884); *Cones, Key N. Amer. B.* 2nd ed. p. 427 (1884); *Whitehead, Ibis*, 1885, p. 38; *Dixon, t. c.* p. 82; *Reid, t. c.* p. 245; *A. O. U. Check-l. N. Amer. B.* p. 247 (1886); *Gigl. Avif. Ital.* p. 17 (1886); *Tait, Ibis*, 1887, p. 100; *Backh. t. c.* p. 72; *Reid, t. c.* p. 135; *Booth, Rough Notes*, vol. i. (1887); *Salvad. Elench. Ucc. Ital.* p. 183 (1887); *Lorenz, Beitr. Orn. Faun. Cæuc.* p. 9 (1887).
- Sansonnet ou Etourneau de France, Daubent. Pl. Ent.* iii. pl. 76.
Common Stare, Lath. Gen. Syn. ii. pt. i. p. 2 (1789).
Sturnus varius, Meyer, Taschenb. Vog. Deutschl. i. p. 208 (1810);
Brehm, Lehrb. Eur. Vog. i. p. 282 (1823); *Tacz. Bull. Soc. Zool. France*, ii. p. 148 (1877).
- Turdus solitarius, Montagu, Orn. Dict. Suppl., art. Thrush* (1813).
Sturnus solitarius, Leach, Cat. Mamm. &c. Brit. Mus. p. 16 (1816).
Sturnus domesticus, Brehm, Isis, 1828, p. 1282.
Sturnus nitens, Brehm, Isis, 1828, p. 1282.
Sturnus punctatus, Brehm, t. c. p. 1282.
Sturnus sylvestris, Brehm, Vog. Deutschl. p. 308 (1831).
Sturnus septentrionalis, Brehm, t. c. p. 400 (1831).
Sturnus hollandiæ, Brehm, t. c. p. 1016 (1831).
Sturnus guttatus, Macgill. Hist. Br. B. i. p. 595 (1837).
Sturnus longirostris, Brehm, Naum. 1855, p. 282.
Sturnus tenuirostris, Brehm, t. c. p. 282.
Sturnus europæus, Blasius, J. f. O. 1863, Nachtr. p. 60 (*teste Dresser*).
Sturnus læroensis, Feilden, Birds of the Faeroe Islands, p. 47 (1872);
Grumach, J. f. O. 1876, p. 219; *Seebohm, Ibis*, 1880, p. 133.

tips of the feathers is a shade of velvety black; crown of head dark green; nape and hind neck purplish red with tiny tips of sandy buff; lores black; ear-coverts, cheeks, and throat steel-green; sides of neck and fore neck purplish red; breast and abdomen dark steel-green, with an oily green shade on the former; sides of body and flanks bluish purple, the latter more steel-green with sandy-buff tips; thighs and under tail-coverts blackish, edged with sandy buff; under wing-coverts and axillaries dusky brown, edged with pale sandy buff; quills below ashy, lighter along the edge of the inner web. Total length 8 inches, culmen 1, wing 5, tail 2·4, tarsus 1·1.

Adult female. With the colours distributed as in the male, but not so brilliant, and with the sandy-buff tips to the feathers much more frequent, the lower surface being specially spotted. Total length 8 inches, culmen 0·95, wing 4·8, tail 2·3, tarsus 1·1.

The female seems never to lose altogether the spotted character of the plumage.

The *adult birds in winter plumage* present the colours of the breeding-plumage for the most part, but are greener on the back and have the whole of the feathers tipped with sandy buff above, and with white on the sides of the face and under surface of body. The grey on the quills is much more extensive and has a sub-terminal black line before the sandy-buff edging.

Young. Entirely brown above, with reddish-brown edges to the wing-coverts, quills, and tail-feathers; sides of face, ear-coverts, and cheeks also uniform brown; throat dull white, the lower part streaked with brown; fore neck, chest, sides of body, and thighs uniform brown, the breast and abdomen white streaked with dusky brown; under wing- and tail-coverts paler and more isabelline brown; gape yellow.

The Common Starling of Western Europe is easily distinguished by its colours—green head, green ear-coverts, green throat, green scapulars and wing-coverts, and steel-blue or greenish-blue flanks. The Siberian Starling, *S. menzbieri*, which visits India in the winter, and which has always been called *S. vulgaris*, differs from the English bird in having a reddish-purple head, ear-coverts, and throat, and also in its violet-purple flanks. In the British Islands, and doubtless in other parts of Europe, intermediate examples occur, more frequently in winter, when a large immigration of foreign Starlings into England takes place. These intermediate specimens vary to any extent as regards the amount of purple on the head and throat, but they are never, so far as my experience goes, true *S. menzbieri*, as they have always green ear-coverts. It may well be that a species exists in Eastern Europe which has a purple head and throat and green ear-coverts, and that this bird migrates westwards and southwards in winter, and that numbers of them stop in England and mate with our indigenous birds, which have in consequence been made to vary more or less in the direction of a purple head and throat. The material at my command has not been sufficient to determine the range of our European birds; and I regret that after a study of *Sturnus vulgaris*, extending

over three years, I have not been able to settle the geographical distribution of the bird in a more satisfactory manner. Besides the purple head and throat, which are characteristic of the Indian and Siberian Starling (*S. menzbieri*), the flanks of the latter are also imbued with a strong violet shade, and it is interesting to note that in the English birds which show purple on the head and throat, a corresponding increase in the violet shade of the flanks is observable; and this circumstance tends to show that all the purple element in Western birds is due to an impregnation of the colour which is the principal character of the Eastern form, and is, no doubt, the result of interbreeding. This most interesting subject I have to leave in its present state of indecision from want of material; but I would point out that the ranges of the European and Siberian races appear to be well-defined, and that it is of the intermediate form that we require more definite knowledge.

Hab. The whole of Western and Central Europe, extending to the Faeroe Islands, where a large-billed race (culmen 1·3 inch) exists. Eastwards through Russia, as high as 64–60° N. lat. (*Menzbier in. litt.*), migrating south in winter to Persia, Syria, and Egypt, as well as to Northern Africa.

<i>a, b.</i> Ad. sk.	Faeroe Islands.	H. H. Batten, Esq. [P.]
<i>c, d.</i> ♂ ad., <i>e.</i> ♀ ad. sk.	Faeroe Islands, Dec. 15, 1873.	H. H. Batten, Esq. [P.]
<i>f, g.</i> ♂ ad.; <i>h.</i> ♀ ad. sk.	Fort George, Nairn, N.B., Dec. 23, 1888.	Hugh Rose, Esq. [P.]
<i>i, k, l.</i> ♂ ad.; <i>m.</i> ♀ ad. sk.	Inverness-shire, Sept. & Oct. 1880.	W. R. Ogilvie Grant, Esq. [P.]
<i>n, o.</i> Ad. sk.	Aboyne, Aberdeenshire, Oct. 1871.	R. B. Sharpe, Esq. [P.]
<i>p.</i> Ad.; <i>q.</i> Juv. sk.	Whitehill, Midlothian (<i>Ward- law Ramsay</i>).	Tweeddale Coll.
<i>r.</i> Ad. sk.	Gateshead Fell, Durham, Dec. 27, 1869.	Hume Coll.
<i>s-c².</i> ♂; <i>d².</i> ♀ ad.; <i>e².</i> Juv. sk.	Otley, Yorkshire, Sept. 1888.	Lord Walsingham [P.]
<i>f² p².</i> ♂ ad.; <i>g² s².</i> ♀ ad.	Tetney, Lincolnshire, Oct., Nov., Dec., 1888.	J. H. Caton-Haigh, Esq. [P.]

x^3-g^4 . ♂; h^4-l^4 . Imm. sk.	Lilford Hall, Sept. 1888.	Lord Lilford [P.].
a . Ad.; β , γ . Juv. sk.	Cambridgeshire.	Mr. J. Baker [C.].
m^4 . ♂ ad. sk.	Hampstead, Middlesex, Feb. 1, 1871 (<i>R. B. S.</i>).	Hume Coll.
n^4 , o^4 . Ad. sk.	Turnham Green, Nov. 1882.	R. B. Sharpe, Esq. [P.].
p^4 . Juv. sk.	Bromley, Sept. 12, 1888 (<i>G. C. N.</i>).	G. C. Norman, Esq. [P.].
q^4 , r^4 . ♂ ♀ ad. sk.	Sydenham, Surrey, Jan. 1868 (<i>Wilson</i>).	Hume Coll.
s^4 . Ad. sk.	Godalming, Surrey, May 1857 (<i>F. D. G.</i>).	Salvin-Godman Coll.
t^4 . Var. alb. st.	Surbiton, Surrey.	Dr. Günther [P.].
u^4 . Juv. sk.	Fernhurst, Sussex, Oct. 20, 1888.	O. Salvin, Esq. [P.].
v^4 , w^4 . ♂ juv. sk.	Pagham, Sussex, Sept. 3, 1874.	R. B. Sharpe, Esq. [P.].
x^4 , y^4 . Ad. sk.	Brighton.	R. B. Sharpe, Esq. [P.].
z^4 . Juv. sk.	Brighton, Nov. 1883.	R. B. Sharpe, Esq. [P.].
a^5 . ♀ ad. sk.	Brighton, Feb. 6, 1884.	R. B. Sharpe, Esq. [P.].
b^5-s^{11} . Ad. et imm. sk.	Brighton, Sept., Oct., Nov., Dec., 1888.	R. B. Sharpe, Esq. [P.].
t^{11} . ♂ ad. sk.	Cuckfield, Sussex, Nov. 12, 1888.	W. R. Ogilvie Grant, Esq. [P.].
u^{11} , v^{11} . Imm. sk.	Romney, Kent, Sept. 11, 1882.	R. B. Sharpe, Esq. [P.].
x^{11} , y^{11} , z^{11} . ♂; a^{12} . ♀ ad. sk.	Avington, Hampshire, Jan. & Nov.	Edward Shelley, Esq. [P.].
$b^{12}-e^{12}$. ♂; $f^{12}-$ g^{12} . ♀ ad. sk.	Avington, Feb. & May.	R. B. Sharpe, Esq. [P.].
h^{12} . ♂ ad. sk.	Maidenhead, Berks, Feb. 23, 1857 (<i>J. G.</i>).	Gould Coll.
i^{12} . ♀ ad. sk.	Monkey Island, May 12, 1858 (<i>J. G.</i>).	Gould Coll.
$k^{12}-s^{12}$. Ad. sk.	Cookham, Berks, Jan. 1879.	R. B. Sharpe, Esq. [P.].
t^{12} , u^{12} . ♂; v^{12} . ♀ ad. sk.	Cookham, Feb. 29, 1874.	R. B. Sharpe, Esq. [P.].
w^{12} , x^{12} . ♂ ad. sk.	Cookham, April & June (<i>J. G.</i>).	Gould Coll.
y^{12} . ♂ ad. sk.	Cookham, Sept. 3, 1868 (<i>R. B. S.</i>).	Tweeddale Coll.
z^{12} , a' . Ad. st.	Cookham.	Mr. W. Briggs [P.].
b' . ♂ ad. sk.	Axmouthe, Devon, March 1883.	R. B. Sharpe, Esq. [P.].
c' , d . Ad. sk.	Kingsbridge, Devon, Nov. 29, 1888.	Dr. Elliot [P.].
e' , f' . ♂ ♀ ad. sk.	St. Bride's, South Wales, Nov. 30, 1888.	Hon. W. Edwards [P.].
g' . ♂ ad. sk.	Norway, May 21, 1875 (<i>R.</i> <i>Collett</i>).	Christiania Museum [P.].
h' . ♂ juv. sk.	Norway, Aug. 1875 (<i>R. Collett</i>).	Christiania Museum [P.].

i'. ♂ ad. sk.	Norway, Oct. 16, 1883 (<i>R. Collett</i>).	Christiania Museum [P.]
k', l'. ♂; m'. ♀ ad. sk.	Stockholm, Sweden, April 1867.	W. Meves [O.]
n'. ♂ ad. sk.	Denmark, March 1871 (<i>A. Benson</i>).	Hume Coll.
o', p'. ♂ ad. sk.	Copenhagen, May 24.	R. B. Sharpe, Esq. [P.]
q'. ♀ imm. sk.	Holstein, Oct. 9.	R. B. Sharpe, Esq. [P.]
r'. ♀ ad. sk.	Pomerania, Oct. 9.	R. B. Sharpe, Esq. [P.]
s', t'. ♂ ad. sk.	Mecklenburg, March 2.	R. B. Sharpe, Esq. [P.]
u'. Juv. sk.	Vienna (<i>Dr. Steindachner</i>).	R. B. Sharpe, Esq. [P.]
o'. ♂ ad. sk.	Holland, March 24.	R. B. Sharpe, Esq. [P.]
p', q'. Ad. sk.	Holland, summer.	R. B. Sharpe, Esq. [P.]
r'. Juv. sk.	Belgium, May 17, 1870.	Brussels Museum.
s'. Ad. sk.	Bordeaux.	Gould Coll.
s°. Ad. sk.	France.	M. A. Boucard [O.]
t'. ♂ ad. sk.	Havre, Dec. 1, 1873 (<i>V. Pluche</i>).	E. Hargitt, Esq. [P.]
u', v'. ♂ ad. sk.	Valencia, Oct. 20, 1871 (<i>H. Saunders</i>).	Tweeddale Coll.
w', x'. Ad. sk.	Azores (<i>F. D. G.</i>).	Salvin-Godman Coll.
y', z'. ♂ ♀ ad. sk.	S. Michael's, Azores, March (<i>F. D. G.</i>).	Salvin-Godman Coll.
a°. Ad. sk.	Algiers, Dec. 1856 (<i>H. B. Tristram</i>).	Hume Coll.
b°-c°. Ad. sk.	Tangiers.	M. Olcese [C.]
d°, e°, f°, g°. ♂ ad. sk.	Genoa, Italy, Oct. 18, 1888.	Oldfield Thomas, Esq. [P.]
A°. ♀ ad. sk.	Cyprus (east side), March 8, 1888 (<i>Dr. Guallemard</i>).	Lord Lilford [P.]
i°. Ad. sk.	Tyre.	Canon Tristram [C.]
k°. Ad. sk.	Damietta, Egypt, Feb. 22, 1870 (<i>G. E. S.</i>).	Shelley Coll.
k°. ♂ imm. sk.	Harankoi, Asia Minor, Nov. 1864 (<i>T. Robson</i>).	Tweeddale Coll.
l°. Ad. sk.	Moldavia, March 17.	R. B. Sharpe, Esq. [P.]

Subsp. a. *Sturnus menzbieri*. (Plate I.)

Sturnus vulgaris (*nec L.*), *Pall. Zoogr. Rosso-Asiat.* i. p. 418 (1811, pt.); *Middend. Reis. Sibir.* p. 162 (1851); *Radde, Sibir. Reis.* p. 213 (1863); *Irby, Ibis*, 1861, p. 231; *Jerd. B. Ind.* ii. p. 312 (1863); *Beavan, Ibis*, 1868, p. 170; *Dybowsky, J. f. O.* 1872, p. 454; *Serertz. Turkest. Jecotn.* p. 64 (1873); *Hume, Str. F.* 1873, p. 206; *Stoliczka, Str. F.* 1874, p. 464; *Hume, Str. F.* 1875, p. 494; *Stoliczka, t. c.* p. 217; *Dresser, Ibis*, 1875, p. 238; *Blanf. East. Pers.* ii. p. 266 (1876, pt.); *Brooks, Ibis*, 1876, p. 500; *Tacz. Bull. Soc. Zool. France*, i. p. 173 (1876); *Butler, Str. F.* 1877, p. 230; *Prjev. in Rowley's Orn. Misc.* ii. p. 146 (1878); *Ball, Str. F.* vii. p. 221 (1878); *Finsch, Mitth. z.-b. Gesellsch.* xxix. p. 201 (1879); *Hume, Str. F.* 1879, pp. 106, 175; *Scully, t. c.* p. 329; *Brooks, t. c.* p. 488; *Seeb. Ibis*, 1880, p. 182; *Biddulph, Ibis*, 1881, p. 78; *Scully, t. c.* p. 573; *Swinh. Ibis*, 1882, p. 111; *Seeböhm, Ibis*, 1882, p. 214; *Homeyer & Tancre, MT. Orn. Ver. Wien*, 1883, p. 88; *Murray, Vertebr. Faun. Sind.* p. 178 (1884); *Marshall, Ibis*, 1884, p. 419; *Swinh. & Barnes, Ibis*, 1885, p. 128; *Scully, J. A. S. Beng.* lvi. p. 85 (1887).

Sturnus indicus (*nec Hodgs.*), *Blyth, J. A. S. Beng.* xiii. p. 366 (1844); *id. Ibis*, 1867, p. 38.

Sturnus humii, *Gould, B. Asia*, v. pl. 43 (1877, *nec descr.*).

Sturnus menzbieri, *Sharpe, Ibis*, 1888, p. 438.

Adult male. Similar to *S. vulgaris* but with a purple crown, instead of a green one; lower back and rump green; scapulars green; wing-coverts bluish green; flanks reddish purple with a slight gloss of steel-blue; throat reddish purple like the head, extending to the fore neck; chest green: "bill blackish-horn, lower mandible narrowly edged with white; legs and feet dark hazel; iris deep brown" (*E. A. Butler*). Total length 9 inches, culmen 1.15, wing 5.15, tail 2.15, tarsus 1.1.

Adult female. Similar to the male. Total length 9 inches, culmen 1.15, wing 5.05, tail 2.5, tarsus 1.1.

Hab. Breeds in Siberia, and probably in most parts of Central Asia, and, according to Hume, in Cashmere. Winters in the plains of India. Is probably the Starling of Lake Baikal, descending in winter to Kokonoor.

a. ♂ ad. sk.	Samarcand, March 17, 1888.	H. Seeböhm, Esq. [P.].
b, c. Ad. sk.	Samarcand, Oct. 1881.	H. Seeböhm, Esq. [P.].
d. ♀ ad. sk.	Fort Perowsk, Syr Darya, Feb. 17.	Purchased.
e. ♂ ad. sk.	Ferghana, Nov. 20, 1878.	Dr. Severtzoff [C.].
f. Ad. sk.	Kashgar (<i>Dr. Bellew</i>).	India Museum.
g. ♀ ad. sk.	Krasnoyarsk, C. Siberia, April 19, 1879.	H. Seeböhm, Esq. [P.].
h. ♀ ad. sk.	Kandahar, Afghanistan, Dec. 8, 1880.	Col. Swinhoe [P.].
i. ♂ ad. sk.	Kandahar, March 6, 1879 (<i>Sir O. St. John</i>).	Hume Coll.
k. Ad. sk.	Kandahar (<i>Griffith</i>).	India Museum.
l. ♀ ad. sk.	Gwadar, Baluchistan, Dec. 1871.	W. T. Blanford, Esq. [C.].

m. Ad. sk.	Sindh (<i>E. A. Butler</i>).	Hume Coll.
n, o. ♂ ad.;	Sukkur, Dec. 26, 1871	Hume Coll.
p. ♀ ad. sk.	(<i>A. O. H.</i>).	
q, r. ♂ ad. sk.	Jacobabad, Dec. 26, 1871	Hume Coll.
	(<i>A. O. H.</i>).	
s, t. ♂ ♀ ad. sk.	Karachi, Nov. 8, 1877 (<i>E. A. Butler</i>).	Hume Coll.
u. Ad. sk.	Mt. Aboo, Dec. 1870 (<i>Dr. Newman</i>).	Hume Coll.
v, w. ♂ ♀ ad. sk.	Sambhur, Jan. 25, 1873 (<i>R. M. Adam</i>).	Hume Coll.
x. ♂ ad. sk.	Sambhur, Nov. 1874 (<i>R. M. Adam</i>).	Hume Coll.
y. ♂ ad. sk.	Meerut, Jan. 20, 1880.	Col. J. Biddulph.
z. ♂ ad. sk.	Delhi, Feb. 4, 1876 (<i>C. T. Bingham</i>).	Hume Coll.
a'-l'. ♂; m'-o'. ♀ ad. sk.	Gurgaon, Jan., March, Nov., Dec. (<i>W. N. Chitt</i>).	Hume Coll.
p'. ♀ ad. sk.	Umbala, Jan. 1867 (<i>Dr. Scott</i>).	Tweeddale Coll.
q'. Ad. sk.	Ferozepur.	Hume Coll.
r'. Ad. sk.	Sirsa District.	Hume Coll.
s'. ♀ ad. sk.	Bhuttoo, Sirsa, Dec. 12, 1867 (<i>A. O. H.</i>).	Hume Coll.
t', u'. Ad. sk.	Sirsa, Dec. 14, 1869.	Hume Coll.
v'. Ad. sk.	Hansie, Punjab.	Hume Coll.
w'. ♂ ad. sk.	Hissar, Dec. 16, 1867 (<i>A. O. H.</i>).	Hume Coll.
x'-β. ♂ ad.;	Abbotabad, Oct. 1870 (<i>W. H. Unwin</i>).	Hume Coll.
y. ♀ ad. sk.		
δ. ♀ ad. sk.	Gilgit, March 14, 1878.	Col. J. Biddulph [C.].
ε. ♀ ad. sk.	Gilgit, Oct. 27, 1880.	Col. J. Biddulph [O.].
ζ. Ad. sk.	Jerripani, Masuri.	Hume Coll.
η. ♂ ad. sk.	Dehra Dhoon, Dec. 4, 1870 (<i>G. King</i>).	Hume Coll.
θ. ♀ ad. sk.	Sewalik Hills, March 1867 (<i>Dr. Scott</i>).	Tweeddale Coll.
ι, κ. Ad. sk.	N.W. Provinces.	Pinwill Coll.
λ-ν. Ad. sk.	N.W. Provinces (<i>W. Ewer</i>).	Gould Coll.
ξ. Ad. sk.	N.W. Provinces (<i>Capt. Harrison</i>).	Gould Coll. (Specimen figured in B. Asia.)
ο. ♂ ad. sk.	Loyah, Etawah, Jan. 13, 1872 (<i>W. E. Brooks</i>).	Hume Coll.
π. ♂; ρ, σ, τ.	Etawal, Jan., Nov., Dec. (<i>W.</i>	Hume Coll.

κ', λ' . ♂ ♀ ad. sk.	Lohardugga, Dec. 1877.	Hume Coll.
μ', ν' . ♂ ad. sk.	Depalpur, C. India, Jan. 6, 1882.	Col. Swinhoe [P.].
ξ' . Ad. sk.	Deccan (<i>Burgess</i>).	Gould Coll.
σ' . Ad. sk.	Madras (<i>R. G. W. R.</i>).	Tweeddale Coll.

2. *Sturnus indicus*.

Sturnus indicus, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 274. figs. 1, 2 (no. 306); *id. in Gray's Zool. Misc.* p. 84; *Hume, Str. F.* 1879, p. 176; *Finsch, Mitth. z.-b. Gesellsch. Wien*, xxix. p. 203 (1879); *Seeb. Ibis*, 1880, p. 183; *id. Hist. Br. B.* ii. p. 13 (1884); *Sharpe, Ibis*, 1888, p. 439.

Sturnus vulgaris (*nec L.*), *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 103 (1846).

Sturnus splendens, *Bp. Consp.* i. p. 421 (1850, *ex Temm. MSS.*); *Gray, Hand-l. B.* ii. p. 21, no. 6308 (1870).

Sturnus unicolor (*nec Temm.*), *Adams, P. Z. S.* 1859, p. 173; *Jerd. B. Ind.* ii. p. 322; *Hume, Ibis*, 1870, p. 529.

Sturnus nitens, *Hume, Ibis*, 1871, p. 410; *id. & Henders. Lahore to Yark.* p. 250, pl. xxiv. (1873); *Hume, Nests & Eggs Ind. B.* p. 425 (1873); *id. Str. F.* 1879, p. 106; *Marshall, Ibis*, 1884, p. 419.

Sturnus ambiguus, *Hume, Str. F.* 1876, p. 512.

Sturnus humii, *Brooks, Ibis*, 1876, p. 500; *Gould, B. Asia*, descr. *nec fig.* (1877); *Brooks, Str. F.* 1879, p. 487.

Adult (type of *Sturnus humii*, Gould). Similar to *S. vulgaris*, but with the breast and flanks bronzy green; scapulars bronzy green; wing-coverts steel-green; back reddish purple; lower back and rump bronzy green with a gloss of reddish purple; head bluish green, nape and hind neck reddish purple, the former with a gloss of steel-blue. Total length 8 inches, culmen 1.15, wing 4.7, tail 2.25, tarsus 1.1.

The males have the wing from 4.55–4.8 inches, and the females from 4.6 to 4.7 inches.

Hab. Himalayas from Cashmere to Nepal, apparently rarely descending to the plains.

a. ♂ ad. sk.	Cashmere, May 1867 (<i>T. C. Jerdon</i>).	Tweeddale Coll.
b. Ad. sk.	Cashmere, May 1867.	Hume Coll.
c-i. ♂ ♀ ad. sk.	Cashmere, May, June (<i>W. E. Brooks</i>).	Hume Coll.
k. ♂ ad. sk.	Cashmere, June 10, 1870.	Dr. G. Henderson [C.] (Type of <i>S. nitens</i> .)
l. Juv. sk.	Cashmere, Aug. 1872 (<i>W. E. Brooks</i>).	Hume Coll.
m. Ad.; n, o. ♂ ♀ juv. sk.	Cashmere. Sept. 1872 (<i>W. E. Brooks</i>).	Hume Coll.
p. Juv. sk.	Cashmere.	Hume Coll.
q, r. Ad. sk.	N.W. India.	Gould Coll.
s. Ad. sk.	N.W. India.	Gould Coll. (Type of <i>S. humii</i> .)
t. ♀ ad. sk.	Horaigot, Kumaon Bhabur, March 24, 1871 (<i>G. King</i>).	Hume Coll.

u. Ad. sk.	Nepal.	Hodgson Coll. (Type of species.)
v-α'. Ad. sk.	Nepal.	Hodgson Coll.
δ'-g'. Ad. sk.	Nepal (B. H. Hodgson).	India Museum.
h'. ♀ imm. sk.	Dinapur, Oct. 11, 1873 (W. E. Brooks).	Hume Coll.

3. *Sturnus poltoratskii*.

Sturnus poltoratskii, Finsch, P. Z. S. 1878, p. 712; id. Mitth. z.-b. Gesellsch. Wien, xxix. p. 201 (1879); Homoyer & Tancret, Mitth. Orn. Ver. Wien, 1883, p. 88; Sharpe, Ibis, 1888, p. 430; Scully, J. A. S. Beng. lvi. p. 86 (1887); Sharpe, Trans. Linn. Soc. (2) Zool. v. p. 82 (1889).

Sturnus nobilior, Hume, Str. F. 1870, p. 175; Nikoliskai, Trud. St. Peterab. xvii. p. 888 (1886).

? *Sturnus vulgaris*, Homoyer & Tancret, t. c. p. 88.

Adult male (type of species). Similar to *S. vulgaris*, and with green scapulars, but distinguished by the violet or reddish-purple wing-coverts; lower back and rump green; head purple, sometimes with slight greenish reflexions; throat purple; flanks beautiful reddish purple with a slight bronzy gloss: "bill yellow, the base of the lower mandible horn-grey; feet reddish brown; iris brown" (O. Finsch). Total length 8.5 inches, culmen 1.2, wing 4.9, tail 2.5, tarsus 1.2.

Hab. Altai Mountains to Afghanistan, south into the plains of India in winter, and westwards to the Caucasus and even to Cyprus.

a. ♂ ad. sk.	Famagusta, Cyprus, Feb. 25, 1888 (H. Guillemand).	Lord Lilford [P.]
b. Ad. sk.	Caucasus, Feb. 18, 1887.	Warsaw Mus. [P.]
c. ♂ ad. sk.	Kuldacha, Aug. 11.	R. B. Sharpe, Esq. [P.]
d. ♂ ad. sk.	Marka Kul, Chinese High Altai, June 7, 1878.	Dr. O. Finsch [C.] (Type of species.)
e, f. ♂ ad. sk.	Kushk, W. Afghanistan, Dec. 1884.	Dr. Aitchison [C.]
g, h. ♂ ad.; i. ♀ ad. sk.	Gulran, March 1885.	Dr. Aitchison [C.]
k, l. Ad.; m.	Kandahar (Griffith).	India Museum.

Subsp. *a.* *Sturnus caucasicus*.

Sturnus sp., *Blanf. East. Persia*, ii. p. 267 (1876).

Sturnus vulgaris (*nec L.*), *Radde, Orn. Cauc.* p. 147 (1884, pt.).

Sturnus purpurascens, *Seeböhm, Ibis*, 1885, p. 8.

Sturnus caucasicus, *Lorenz, Beitr. Orn. Fauna Cauc.* p. 9, Taf. v. fig. 1 (1887); *Sharpe, Ibis*, 1888, p. 439.

Adult male. Similar to *S. poltoratzkii*, but with the head and throat dark green, the hind neck purple; wing-coverts dark steel-green, externally glossed with purple; scapulars dark steel-green; wing-coverts rich purple; lower back, rump, and upper tail-coverts green; flanks purplish red. Total length 8·5 inches, culmen 1·2, wing 5·25, tail 2·7, tarsus 1·2.

Adult female. Similar to the male, but with the colours not so vivid. Total length 8 inches, culmen 1·2, wing 5, tail 2·5, tarsus 1·15.

Hab. From the Caucasus to Persia.

<i>a, b.</i> ♂ ad.;	<i>c, d.</i> Kiselovodsk, N. Caucasus,	Purchased.
♀ ad. sk.	May 18.	
<i>e, f.</i> Ad. sk.	Kiselovodsk, N. Caucasus,	St. Petersburg Museum
	March 2, 1886.	[P.]
<i>g.</i> ♀ ad. sk.	Caucasus, April 2, 1888.	Warsaw Mus. [P.]
<i>h.</i> ♂ ad. sk.	Jáji Rúd Valley, Elburz Mta.,	W. T. Blanford, Esq.
	N. Persia, Aug. 6, 1872.	[C.]

4. *Sturnus purpurascens*.

Sturnus purpurascens, *Gould, P. Z. S.* 1868, p. 219; *id. B. Asia*, v. pl. 44 (1870); *Gray, Hand-l. B.* ii. p. 22, no. 6311 (1870); *Dresser, B. Eur.* iv. p. 419 (1880, *nec fig.*); *Danf. Ibis*, 1878, p. 25; *Finsch, Mitth. z.-b. Gesellsch. Wien*, xxxix. p. 202 (1879); *Sharpe, Ibis*, 1888, p. 440.

Adult male. Similar to *S. vulgaris*, but having the scapulars reddish purple like the lower back and rump, these parts slightly washed with steel-blue; mantle and back green; wing-coverts reddish purple; head and throat purple; flanks bronzy purple. Total length 8·5 inches, culmen 1·1, wing 5·4, tail 2·55, tarsus 1·2.

One of the Gouldian specimens from Trebizond has the head green, as well as the throat. It is in winter plumage, and Mr. Gould considers it to be "young." Wing 5·1.

Hab. From the Dobrudscha, in Eastern Europe; Cyprus: throughout Asia Minor to Afghanistan, and occasionally appearing in the plains of India.

<i>a, b, c.</i> Juv. sk.	Dobrudscha, June 6, Aug. 16.	R. B. Sharpe, Esq.
		[P.]
<i>d.</i> ♂ ad. sk.	Famagusta, Cyprus, Feb. 25, 1888	Lord Lilford [P.]
	(<i>H. Guillemard</i>).	
<i>e.</i> ♀ ad. sk.	Monastir, Cyprus, Oct. 7, 1878 (<i>W. Pearce</i>).	Lord Lilford [P.]

<i>f.</i> Ad. sk.	Erzeroum (<i>Dickson & Ross</i>).	Gould Coll. (Type of species.)
<i>g.</i> Ad. sk.	Erzeroum (<i>Huet de Pavillon</i>).	Gould Coll.
<i>h.</i> [Juv.] sk.	Trebizond (<i>Keith Abbott</i>).	Gould Coll.
<i>i.</i> Ad. sk.	Asia Minor, May 21, 1865 (<i>T. Robson</i>).	Tweeddale Coll.
<i>k, l.</i> ♂ ♀ ad. sk.	Kandahar, Dec. 8, 1880.	Col. Swinhoe [C.].
<i>m.</i> ♀ ad. sk.	Kandahar, Feb. 24, 1879 (<i>Sir O. St. John</i>).	Hume Coll.
<i>n.</i> ♀ ad. sk.	Rawul Pindi (<i>J. Biddulph</i>).	Tweeddale Coll.
<i>o.</i> ♂ ad. sk.	Gurgaon district, Delhi, Feb. 22, 1870 (<i>W. N. Chill</i>).	Hume Coll.
<i>p.</i> Ad. sk.	India.	Gould Coll.

Subsp. *a.* *Sturnus porphyronotus*. (Plate II.)

Sturnus unicolor (*nec T.*), *Severtz. Turkestan. Jevotn.* p. 64 (1873); *Dresser, Ibis*, 1875, p. 283.

Sturnus purpurascens (*nec Gould*), *Hume, Str. F.* viii. p. 176 (1879); *Brooks, t. c.* p. 448; *Dresser, B. Eur.* iv. pl. 249 (1880, *nec descr.*); *Biddulph, Ibis*, 1881, p. 79; *Scully, t. c.* p. 573; *Biddulph, Ibis*, 1882, p. 8; *Severtz. Ibis*, 1883, p. 58; *Menzies, Ibis*, 1885, p. 353; *Lorenz, Beitr. Orn. Faun. Cauc.* p. 9 (1887).

Sturnus vulgaris (*nec L.*), *Scully, Str. F.* iv. p. 162 (1876).

Sturnus porphyronotus, *Sharpe, Ibis*, 1888, p. 438.

Adult. Similar to *S. purpurascens*, but with the back entirely reddish purple like the rump and upper-tail coverts; a slight shade of purplish blue on the back in very old birds, but the back not steel-green as in *S. purpurascens*; head dark green; throat dark green. Total length 8 inches, culmen 1.15, wing 5.05, tail 2.45, tarsus 1.15.

Hab. Central Asia from Yarkand to Afghanistan, wintering in the plains of India.

<i>a, b.</i> Ad. sk.	Yarkand (<i>Chapman</i>).	R. B. Sharpe, Esq. [P.]. (Types of species)
<i>c, d.</i> ♂ ♀ juv. sk.	Yarkand, Aug. 1870 (<i>G. Henderson</i>).	Hume Coll.
<i>e.</i> ♀ ad. sk.	Yarkand, March 14, 1875 (<i>J. Scullard</i>).	Hume Coll.

<i>f'</i> . ♀ ad. sk.	Umballa, Oct. 1866 (<i>R. C. Tweeddale Coll.</i> <i>Bearan</i>).
<i>g'</i> . ♀ ad. sk.	Umballa, Nov. 1866 (<i>R. C. B.</i>). <i>Tweeddale Coll.</i>
<i>h'</i> . ♂ ad. sk.	Dehra, Dec. 4, 1870. <i>Hume Coll.</i>
<i>i'</i> . Ad. sk.	Saharunpur. <i>Hume Coll.</i>
<i>k'</i> . ♂ ad. sk.	Aligurb, Nov. 7, 1877. <i>Hume Coll.</i>
<i>l'</i> . ♂ ad. sk.	Rahun, Etawah, Feb. 26, 1869. <i>Hume Coll.</i>

5. *Sturnus minor*.

Sturnus minor, *Hume, Str. F.* 1873, p. 207; *Blanf. Str. F.* 1877, p. 246; *Hume, Str. F.* 1879, pp. 106, 175; *Doig, t. c.* p. 274; *Murray, Vertebr. Faun. Sind*, p. 178 (1884); *Sharpe, Ibis*, 1888, p. 440.

Adult male. Similar to the reddish-purple plumage of *S. vulgaris*, but much smaller, and with the back reddish purple without any shade of purplish blue; abdomen coppery green; head and throat green; scapulars reddish purple like the back; wing-coverts green with a slight gloss of reddish purple: "bill yellow; legs and feet claret-brown; iris brown" (*Scrope Doig, MSS.*). Total length 7·8 inches, culmen 1·1, wing 4·55, tail 2·3, tarsus 1·1.

Adult female. Similar to the male, but much duller in colour: "iris pale whitish yellow" (*S. Doig*). Total length 7 inches, culmen 1·05, wing 4·5, tail 2·2, tarsus 1·1.

Hab. Breeds in Sindh, occurring in winter as far east as Etawah.

<i>a.</i> ♂ ad. sk.	Larkhana, Jan. 11, 1872 (<i>A. O. H.</i>). <i>Hume Coll.</i> (Type of species.)
<i>b, c.</i> ♂ ad. sk.	Muncher Lake, April 16. Sept. <i>Hume Coll.</i>
<i>d.</i> Ad. sk.	Koree Dist., Nov. 1871 (<i>F. Day</i>). <i>Hume Coll.</i>
<i>e-i.</i> ♂ ad.; <i>k.</i> ♀ ad. sk.	W.S.W. of Koree, March 1876 (<i>W. T. Blanford</i>). <i>Hume Coll.</i>
<i>l-u.</i> ♂; <i>r, w, x.</i> ♀ ad.; <i>y-a'</i> . ♀ juv. sk.	Eastern Narra, Feb., March, April (<i>Scrope Doig</i>). <i>Hume Coll.</i>
<i>b'-d'</i> . ♂ ad. sk.	Lovah, Etawah, Jan. 13, 1872 (<i>W. R. Brooks</i>). <i>Hume Coll.</i>

6. *Sturnus unicolor*.

Sturnus unicolor, *Temm. Man. d'Orn.* p. 133 (1820); *Werner, Atlas, Omnivores*, pl. 20 (1827); *Gould, B. Eur.* iii. pl. 211 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 28 (1838); *id. Faun. Ital., Ucc.* tav. 23. fig. 1 (1838); *Gray, Gen. B.* ii. p. 337 (1847); *Bp. Consp.* i. p. 421 (1850); *Tristr. Ibis*, 1859, p. 293; *Poey's, Ibis*, 1860, p. 137; *Naum. Vög. Deutschl., Anhang, Taf. 351.* fig. 1 (1860); *Wright, Ibis*, 1864, p. 56; *Bree, B. Eur.* i. p. 156, cum tab. (1866); *Lilford, Ibis*, 1866, p. 183; *Degl. & Gerbe, Orn. Eur.* i. p. 234 (1867); *Loche, Expl. Sci. Algér., Ois.* p. 127 (1867); *Tristr. Ibis*, 1867, p. 367; *Drake, t. c.* p. 428; *Doderl. Arif.* p. 70 (1869); *Fritsch, Vög. Eur.* tab. 27. fig. 2 (1870); *Gray, Hand-l. B.* ii. p. 21, no. 6307 (1870); *Salvad. Faun. Ital. Ucc.* p. 166 (1871); *Saunders, Ibis*, 1871, p. 220; *Brooke, Ibis*, 1873, p. 247; *Dresser, B. Eur.* iv. p. 415, pl. 248 (1874); *Irby, B. Gibr.* p. 131 (1875); *Gould, B. Asia.* v. pl. 42 (1877); *Gigl. Ibis*, 1881, p. 205; *Irby, Ibis*, 1882, p. 184; *Chapm. Ibis*, 1884, p. 97; *Tristr. Faun. & Flor. Palest.* p. 73 (1884); *Reid,*

Ibis, 1885, p. 245; *Giglioli, Avif. Ital.* p. 18 (1886); *Tait, Ibis*, 1887, p. 179; *Salvad. Elench. Ucc. Ital.* p. 183 (1887).
Sturnus vulgaris unicolor, *Schleg. Rev. Crit.* p. lvii (1844).

Adult male. Uniform black above and below, glossed with bronzy purple, and slightly also with green, the feathers of the head, throat, and neck elongated and lanceolate; wing-coverts more purple than the back; quills brown, externally black, glossed with steel-green on the edges, all with paler ashy-brown tips, edged with black round the ends; tail-feathers ashy brown, externally glossed with purplish or greenish: "bill yellow, bluish at base of lower mandible; legs brownish flesh-colour; iris dark brown." Total length 8·5 inches, culmen 1·1, wing 5·2, tail 2·35, tarsus 1·25.

Adult female. Similar in colour to the male. Total length 8·5 inches, culmen 1·15, wing 5, tail 2·4, tarsus 1·15.

In *winter plumage* all the feathers are tipped with arrow-shaped spots of greyish white; the wing-coverts, quills, and tail-feathers are edged with sandy brown; the bill is blackish.

Young. Exactly like the young of *S. vulgaris*.

Hab. The countries of the Mediterranean.

<i>a-g.</i> Ad. sk.	Seville, May.	
<i>h.</i> Ad. sk.	Malaga.	R. B. Sharpe, Esq. [P.]
<i>i, k.</i> ♂; <i>l, m.</i> ♀ ad. sk.	Malaga, Jan., March, May.	R. B. Sharpe, Esq. [P.]
<i>n.</i> Ad. sk.	Madrid.	Shelley Coll.
<i>o.</i> ♂ ad. sk.	Morocco (<i>Olcese</i>).	Shelley Coll.
<i>p-r.</i> Ad. sk.	Morocco.	Tweeddale Coll.
<i>s.</i> Juv. sk.	Tangier (<i>P. L. Selater</i>).	Gould Coll.
<i>t.</i> ♀ ad. sk.	Cagliari, Sardinia, May 1877.	Dr. Giglioli [P.]
<i>u, v.</i> ♂ ♀ ad. sk.	Sardinia, Jan. 1889.	Major H. Trevelyan [P.]
<i>w.</i> Ad. sk.	Sardinia.	Baron Langier [C.]
<i>x.</i> ♀ ad. sk.	Corsica, December.	R. B. Sharpe, Esq. [P.]

2. POLIOPSAR.

Poliopsar, *Sharpe, Ibis*, 1888, p. 476 Type.
P. sericeus.

Key to the Species.

- a.* Bill uniform red or yellow, culmen black towards tip, but no black base to lower mandible; rump white or whitish, lighter than the rest of the back; abdomen white, not vinaceous or rufous; no grey tips to primaries.
- a'.* Throat blackish or dark ashy, with white streaks; fore neck and breast uniform dark ashy or blackish; sides of body browner; head blackish, more or less streaked with white; no white shaft-lines on back.
- a''.* Rump white; white tips to the tail-feathers *cineraceus*, p. 41.
- b'.* No white on the rump; no white tips to the tail-feathers *colletti*, p. 43.
- b'.* Throat white like the abdomen; head white or ashy white; back brown, with whitish shaft-lines *sericeus*, p. 44.
- b.* Bill yellow, with no black base; back grey; rump pale vinaceous; head all round and entire sides of face and under surface of body vinaceous *cambodianus*, p. 44.
- c.* Bill red or yellow, but the lower mandible having a black base, so that the bill is parti-coloured in skin.
- c'.* Under tail-coverts and tips of tail-feathers white or buff, not chestnut; grey tips to primaries absent or very indistinct.
- c''.* Vinaceous underneath.
- a'''.* No vinous collar round the hind neck : no white rump *burmanicus*, p. 45.
- b'''.* A vinous collar round the hind neck : a white rump *leucocephalus*, p. 46.
- d''.* Pure white below *andamanensis*, p. 47.
- d'.* Under tail-coverts and tips of tail-feathers chestnut; primaries without a grey terminal spot; rump chestnut, contrasting with the ashy back and white head *erythropygus*, p. 48.
- e'.* Under tail-coverts and tips of tail-feathers chestnut; primaries with a broad grey spot on the end.
- e''.* Head ashy grey, with pale shaft-streaks; the head, neck, and throat sometimes bleaching to whiteness; rufous of under surface extending to the throat.
- e'''.* First primary and bastard-wing black. *malabaricus*, p. 48.
- d'''.* First primary and bastard-wing white. *nemoricolus*, p. 52.
- f''.* Head and breast pure white, sharply defined, and contrasting with the chestnut abdomen and the grey back *blythii*, p. 54.

1. *Poliopsar cineraceus*.

Sturnus cineraceus, *Temm. Pl. Col.* ii. pl. 556 (1827); *id. & Schl. Faun. Japon.*, *Aves*, p. 85, pl. 45 (1850); *Bp. Cons.* i. p. 421

(1850); *Schrenck, Reis. Amurl.* p. 327 (1850); *Swinh. P. Z. S.* 1862, p. 319, 1863, p. 301; *Radde, Reis. Sibir., Vög.* p. 214, pl. vi. figs. 2 A, 2 B, 2 C (1863); *Gray, Hand-l. B.* ii. p. 21, no. 6309 (1870); *Swinh. Ibis*, 1870, p. 352, 1871, p. 384, 1874, p. 159; *Dybowski, J. f. O.* 1874, p. 323; *Tacz. Bull. Soc. Zool. France*, i. p. 174 (1876); *Prjev. in Rowley's Orn. Misc.* ii. p. 287 (1877); *David & Oust. Ois. Chine*, p. 301 (1877); *Blakist. & Pryer, Ibis*, 1878, p. 233; *Scl. Ibis*, 1882, p. 434; *Blakist. Amended List B. Japan*, pp. 14, 40 (1884); *Seebohm, Ibis*, 1884, p. 266; *Tacz. P. Z. S.* 1887, p. 606.

Sturnus cinerascens, *Gray, Gen. B.* ii. p. 337 (1847); *Tacz. Bull. Soc. Zool. France*, x. p. 472 (1885).

Temenuchus cineraceus, *Swinh. Ibis*, 1860, p. 60, 1861, p. 44.

Poliopsis cineraceus, *Sharpe, Ibis*, 1888, p. 476.

Adult male. General colour above ashy drab-brown, the feathers being of the latter colour on their edges; scapulars like the back; rump white, forming a transverse band; upper tail-coverts ashy, dark brown towards the base; lesser wing-coverts a little darker than the back; median coverts dark brown, bronzy or olive-green towards the ends; greater coverts similar, but the bronzy colour predominating, the outer web being very broadly margined with this colour; bastard-wing, primary-coverts, and quills blackish, with narrow fringes of whitish brown, the outer secondaries bordered with white, the inner ones bronzy like the greater coverts, with dusky margins; centre tail-feathers bronzy brown, the remainder black, with a slight greenish gloss on the outer web, which is edged with whitish, and a large white spot on the end of the inner web, increasing in extent towards the outermost feather; crown of head black with a greenish gloss, the feathers attenuated and lanceolate; the forehead with narrow whitish feathers, which extend over the eyes; lores whitish; sides of face and ear-coverts white, with blackish streaks; base of cheeks whitish; remainder of cheeks, throat, sides of neck, fore neck, and breast dark slaty grey, becoming paler on the sides of the breast; chin white; a few feathers on the throat and fore neck more or less white; centre of breast and abdomen white; sides of body, flanks, and thighs drab-brown; under tail-coverts white; under wing-coverts and axillaries white.

Mr. Ringer's collection contains a specimen marked "female," from Nagasaki, which is similar to the male.

Hab. Eastern Siberia to Japan, and throughout China and Formosa, extending into Upper Burmah.

<i>a.</i> ♂ ad. ; <i>b, c.</i> Pull. sk.	Sidemi, Ussuri Land, May and June.	St. Petersburg Mus.
<i>d, e.</i> Ad. sk.	S. Manchuria, June 2, 1886.	H. E. M. James, Esq. [P.].
<i>f-h.</i> Ad. sk.	Ichang Gorge, Yang-tze River, Dec. 1887.	Mr. Pratt [C.].
<i>i.</i> ♂ ad. sk.	Shanghai, Feb. 1873 (<i>R. Swin-</i> <i>hoe</i>).	Seebohm Coll.
<i>k.</i> Ad. sk.	Shanghai, Jan. 8 (<i>R. Berg-</i> <i>mann</i>).	Tweeddale Coll.
<i>l-m.</i> ♂ ♀ ad. sk.	Sheshu, March 30, 1869 (<i>R.</i> <i>Swinhoe</i>).	Seebohm Coll.
<i>n.</i> ♂ ad. sk.	Kulangsu, Jan. 18, 1859 (<i>Lei-</i> <i>den Museum</i>).	Salvin-Godman Coll.
<i>o.</i> Ad. sk.	Macao (<i>R. Swinhoe</i>).	Salvin-Godman Coll.
<i>p.</i> Ad. sk.	Foochow, Jan. 1867 (<i>R. S.</i>).	Seebohm Coll.
<i>q, r.</i> Ad. sk.	Fokien.	Gould Coll.
<i>s, t, u.</i> ♂ ad. ; <i>v, w.</i> ♀ ad. sk.	Amoy, Jan. 1867 (<i>R. S.</i>).	Seebohm Coll.
<i>x.</i> ♂ ad. sk.	Amoy, Jan. 1860.	Consul Swinhoe [C.].
<i>y.</i> Ad. sk.	Amoy, Jan. 1860 (<i>R. S.</i>).	Tweeddale Coll.
<i>z.</i> Ad. sk.	Amoy.	Consul Swinhoe [P.].
<i>a', b'.</i> ♀ ad. sk.	Amoy, Feb. 1861 (<i>R. S.</i>).	Gould Coll.
<i>c'.</i> ♀ ad. sk.	Amoy, Feb. 1861 (<i>R. S.</i>).	Hume Coll.
<i>d'.</i> ♀ ad. sk.	Amoy, Nov. 25, 1859 (<i>R. S.</i>).	Seebohm Coll.
<i>e'.</i> Ad. sk.	Amoy, Nov. (<i>R. S.</i>)	Tweeddale Coll.
<i>f'.</i> ♂ ad. ; <i>g',</i> <i>h'.</i> ♀ ad. sk.	Amoy, Dec. 2, 1867 (<i>R. S.</i>).	Seebohm Coll.
<i>i', k'.</i> Ad. sk.	Amoy (<i>R. S.</i>).	Seebohm Coll.
<i>l'.</i> Ad. sk.	Canton.	Tweeddale Coll.
<i>m', n'.</i> Juv. sk.	Talien Bay, July (<i>R. S.</i>).	Seebohm Coll.
<i>o'.</i> Ad. sk.	Formosa, Nov. 1865 (<i>R. S.</i>).	Hume Coll.
<i>p'.</i> Ad. sk.	S.W. Formosa (<i>R. S.</i>).	Seebohm Coll.
<i>q'-s'.</i> Ad. sk.	Japan.	C. Maries [C.].
<i>t'.</i> Ad. sk.	Japan.	Gould Coll.
<i>u'.</i> Ad. sk.	Nagasaki.	Capt. St. John [C.].
<i>v'.</i> ♀ ad. sk.	Nagasaki, Jan. 11, 1880.	F. Ringer, Esq. [P.].
<i>w'.</i> Ad. sk.	Bhamo.	Oates Coll.

2. *Poliopsar colletti*.*

Poliopsar colletti, Sharpe, *Ibis*, 1888, p. 477.

Adult. Similar to *P. cineraceus*, but everywhere blacker ; the white rump, however, wanting, as well as the white spots on the

* *Sturnopastor niger*, Blyth, *Ibis*, 1859, p. 211, would seem to be very nearly allied to this species, but *P. colletti* certainly has no "brightish yellow under the wings." The habitat of *S. niger* still, we believe, remains unknown.

ends of the tail-feathers. Total length 8 inches, culmen 1.05, wing 5, tail 2.55, tarsus 1.45.

Hab. Unknown.

α. Ad. sk.

— ?

Prof. R. Collett [P.]
(Type of species.)

3. *Poliopsar sericeus*.

Silk Starling, *Brown, Ill. Orn.* p. 48, pl. 21 (1770).

Silk Stare, *Lath. Gen. Syn.* ii. pt. i. p. 10 (1783).

Sturnus sericeus, *Gm. Syst. Nat.* i. p. 805 (1788); *Swinh. Ibis*, 1861, p. 338; *id. P. Z. S.* 1863, p. 301; *Gray, Hand-l. B.* ii. p. 22, no. 6310 (1870); *id. Fasc. B. China*, pl. v. (1871); *Swinh. P. Z. S.* 1871, p. 384; *David & Oust. Ois. Chine*, p. 362, pl. 87 (1877), *Blakist. & Pryer, Ibis*, 1878, p. 233; *Blakist. Amended List B. Japan*, p. 30 (1844).

Pastor leucocephalus, *Gray, Gen. B.* ii. p. 334 (1847).

Heterornis sericeus, *Bp. Consp.* i. p. 418 (1850).

Temenuchus sericeus, *Swinh. Ibis*, 1860, p. 60, 1861, p. 44.

Poliopsar sericeus, *Sharpe, Ibis*, 1888, p. 476.

Adult. General colour above light ashy grey, a little darker on the hind neck, where the feathers are long and lanceolate; scapulars like the back, externally white, with a subterminal shade of black; rump and upper tail coverts a little lighter grey, with ashy-whitish margins; lesser wing-coverts blackish, edged with slaty grey; median coverts glossy purplish black; greater coverts black, externally glossy green, with purple reflexions, velvety black interiorly; bastard-wing black, externally white; primary-coverts white, black near the centre of the tips of the feathers; quills black, the primaries externally glossy purple and white at the extreme base; the secondaries externally glossy green, like the greater coverts, bluish or purple towards the ends; centre tail-feathers glossy green, the remainder black, externally bluish green or purple; crown of head and nape, sides of face, ear-coverts, cheeks, throat, sides of neck, and fore neck white, followed by an ashy-grey breast; abdomen white; sides of body and flanks pale ashy grey tinged with brown; thighs white, ashy grey posteriorly; undertail-coverts white; under wing-coverts and axillaries white; quills below dusky, ashy brown along the inner edge, the base of the quills white; "bill bright red, with the tips white; feet orange; iris black, with a light circle" (*A. David*). Total length 7.8 inches, culmen 1, wing 4.75, tail 2.4, tarsus 1.15.

All the males, so marked, are of a delicate grey, and vary very slightly in the direction of a whiter or a browner head. A female collected by Mr. Reeves at Ningpo is altogether browner, rather more ashy on the rump; the gloss on the wings and tail less distinct; primary-coverts blackish brown near the base, white at the ends, with a central black streak; head whitish, ashy grey on sides of crown and hind neck; sides of face whitish, ashy on the cheeks; under surface of body as in the male, but light brown instead of grey. This specimen is apparently immature.

Hab. Central and Southern China. Doubtful in Japan.

a, b. Ad. sk.	Yang-tze River.	C. Maries [C.].
c, d. ♂ ♀ ad. sk.	Ningpo (J. R. Reeves).	Gould Coll.
e. ♀ ad. sk.	Ningpo, April 1872 (R. Swinhoe).	Seebohm Coll.
f, g. Juv. sk.	Ningpo, May 1872 (R. Swinhoe).	Seebohm Coll.
h. ♂ ad. sk.	Ningpo, April (R. S.).	Tweeddale Coll.
i, k. Ad. sk.	Fokien.	Gould Coll.
l, m. Ad. sk.	Amoy (R. Swinhoe).	Gould Coll.
n. ♂ ad. sk.	Amoy, Jan. 1860.	Consul Swinhoe [C.].
o. Ad. sk.	Amoy, Nov. 1866 (R. Swinhoe).	Hume Coll.
p, q. ♂; r, s. ♀ ad. sk.	Amoy, Nov. and Dec. (R. Swinhoe).	Seebohm Coll.
t. ♂ ad. sk.	Amoy, Dec. 1867 (R. Swinhoe).	Hume Coll.
u. ♀ ad. sk.	Amoy, Dec. 1866 (R. Swinhoe).	Tweeddale Coll.
v. ♂ ad. sk.	Canton.	Tweeddale Coll.

4. *Poliopsar cambodianus*. (Plate III.)

Poliopsar cambodianus, Sharpe, *Ibis*, 1888, p. 477.

Adult. Similar to *P. leucocephalus*, but having the whole of the head and throat pinkish buff, like the under surface of the body; tail-feathers also pinkish buff instead of white at the ends. Total length 8 inches, culmen 0·9, wing 4·6, tail 2·5, tarsus 1·3.

Hab. Cambodia.

a. Ad. sk.	Cambodia.	M. Mouhot [C.]. (Type of species.)
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5. *Poliopsar burmanicus*. (Plate IV. fig. 1.)

Sturnia burmanica, Jerd. *Ibis*, 1862, p. 21; Blyth, *Ibis*, 1865, p. 33; Gray, *Hand-l. B.* ii. p. 20, no. 6295 (1870); Hume, *Str. F.* vi. p. 392 (1878), viii. p. 106 (1879); Oates, *Handb. B. Br. Burm.* i. p. 385 (1883).

Temenuchus burmanensis, Jerd. *J. A. S. Beng.* xxxi. p. 346 (1862); Blyth. *op. cit.* xxxii. p. 77 (1863).

Temenuchus burmanicus, Blanford. *Ibis*, 1870, p. 406; Hume, *Str. F.* 1875, p. 149; Armstr. *Str. F.* 1876, p. 322; Anders. *Zool. Exped. Yunnan, Birds*, p. 596 (1878).

Acridotheres burmanicus, Giebel, *Thes. Orn.* i. p. 265 (1872); Salvad. *Ann. Mus. Civic. Genov.* (2) iv. p. 605 (1887).

Poliopsar burmanicus, Sharpe, *Ibis*, 1888, p. 476.

Adult female. General colour above dull ashy grey, shaded with brown; scapulars like the back; upper tail-coverts rather lighter ashy; lesser wing-coverts ashy grey, the outer ones fringed with black; median coverts dark bronzy brown, edged with black; greater coverts lighter bronzy brown, fringed with black; bastard-wing black, one feather externally white; primary-coverts white, with black on the outer webs of some of the feathers; quills black,

the primaries white at the base and fringed with light brown near the ends of the outer webs; secondaries bronzy brown like the greater coverts, and similarly fringed with black; centre tail-feathers bronzy brown, the remainder black tipped with white, increasing in extent towards the outer feather; crown of head dingy white, as also the entire sides of face, ear-coverts, cheeks, and throat; remainder of under surface pale ochreous pink, the abdomen lighter and inclining to pinky white; sides of body, flanks, and thighs somewhat shaded with ashy; under tail-coverts white; under wing-coverts and axillaries white; quills below blackish, white at base: "bill red; the gape, basal half of lower mandible, and base of upper mandible black; inside of mouth dark blue; legs and claws dusky orange-yellow; iris dark brown; eyelids and naked skin of head slaty brown" (*E. W. Oates*). Total length 8.5 inches, culmen 0.95, wing 4.4, tail 2.7, tarsus 1.15.

Adult male. Similar to the female. Total length 8 inches, culmen 1, wing 4.45, tail 3, tarsus 1.15.

Mr. Oates says that "immediately after the moult the head is nearly pure white, but after a few weeks the colour changes to dull white, grey, and eventually to brown."

Hab. Burmah.

a-c. Ad. sk.	Upper Burmah (<i>Jerdon</i>).	Gould Coll.
d. Ad. sk.	Upper Burmah.	Dr. Jerdon [P.]. (Type of species.)
e. Ad. sk.	Bhamo.	Oates Coll.
f. Ad. sk.	Bhamo, Jan. 29, 1868.	Dr. J. Anderson [C.].
g, h. Ad. sk.	Bhamo, Feb. 1868 (<i>Dr. J. Anderson</i>).	Hume Coll.
i. ♂ ad. sk.	Yayleyman, Upper Burmah, Jan. 6, 1875.	Dr. J. Anderson [C.].
k. Ad. sk.	Ava.	W. T. Blanford, Esq. [P.].
l. ♂ ad. sk.	Rangoon, Nov. 29, 1875 (<i>Dr. Armstrong</i>).	Hume Coll.
m. ♀ ad. sk.	Tonghoo, June 1874 (<i>R. G. W. R.</i>).	Tweeddale Coll.
n. ♂ ad. sk.	Boulay, Upper Pegu, May 25, 1873.	Oates Coll.
o. Ad. sk.	Bhamo, Jan. 27, 1881.	Oates Coll.

Sturnia incognita, *Hume, Str. F.* viii. p. 396 (1879), ix. p. 205 (1880).

Sturnia leucocephala, *Oates, B. Brit. Burm.* i. p. 386 (1883).

Poliopsar leucocephalus, *Sharpe, Ibis*, 1888, p. 476.

Adult. Similar to *P. burmanicus*, but larger, slaty black above, with a greenish tinge; lower rump pale fawn-buff, forming a band; sides of neck and hind neck pinkish vinaceous like the breast, and forming a collar; wings much darker than in *P. burmanicus*, and the primary-coverts entirely white; upper tail-coverts and tail-feathers blackish, the white ends much broader than in *P. burmanicus*: "bill and legs yellow, the base of the bill reddish orange; iris brown" (*Giglioli*). Total length 9.5 inches, culmen 0.95, wing 4.95, tail 2.9, tarsus 1.35.

A curious difference in the colour of the head is exhibited in two specimens from Cochin China in the Museum. In one the head is greyish white, like the types of *Sturnia incognita*, and in the other it is creamy white.

Hab. Cochin China and Siam, extending to the borders of the province of Tenasserim.

<i>a, b.</i> Ad. sk.	Cochin China.	M. E. Pierre [P.].
<i>c.</i> Ad. sk.	Siam.	W. T. Blanford, Esq. [P.].
<i>d-m.</i> Ad. sk.	Siam (<i>Mandelli Coll.</i>).	Hume Coll. (Types of <i>S. incognita</i> .)
<i>n-u.</i> Ad. sk.	Headwaters of Tenasserim River (<i>Mandelli Coll.</i>).	Hume Coll.

7. *Poliopsar andamanensis*.

Temenuchus erythropygius (*nec Blyth*, 1846), *Blyth, J. A. S. Beng.* xxviii. p. 274 (1859), xxix. p. 106 (1860).

Temenuchus andamanensis, *Beavan, Ibis*, 1867, p. 239 (*ex Tytler MSS.*); *Blyth, Ibis*, 1868, p. 132; *Gray, Hand-l. B.* ii. p. 20, no. 6298 (1870); *Ball, J. A. S. Beng.* xxxix. pt. 2, p. 242 (1870), xli. pt. 2, p. 285 (1872); *id. Str. F.* 1873, p. 75; *Hume, Str. F.* 1874, p. 248.

Sturnia andamanensis, *Walden, Ibis*, 1873, p. 313, pl. xii. fig. 2; *Hume, Str. F.* 1879, p. 106.

Poliopsar andamanensis, *Sharpe, Ibis*, 1888, p. 476.

Adult male. General colour above pale ashy grey, whiter on the rump; upper tail-coverts grey, edges of the scapulars white; wings black, with external reflexions of glossy green, the lesser coverts edged with slaty grey; tail-feathers black, also glossed with green, with a white mark at the end of the inner web of all but the centre ones, this mark increasing in extent towards the outer feathers, which are white for their terminal half and along the greater part of the outer web; head all round, hind neck, sides of neck, and entire under surface of body white, sometimes inclining to delicate ashy; vent and under tail-coverts tinged with fawn-colour; under wing-coverts and axillaries white; quills dusky below, ashy along

the inner web: "bill and legs gamboge, the base of the mandible bluish slate; iris white" (*Wardlaw Ramsay*). Total length 8 inches, culmen 0·9, wing 4·15, tail 2·85, tarsus 1.

Adult female. Similar in colour to the male. Total length 7·7 inches, wing 4, tail 2·7, tarsus 1·05.

Hab. Andaman and Nicobar Islands.

<i>a-e</i> . ♂ ad.; <i>f, g</i> . ♀ ad. sk.	Andaman Islands, Dec. 1872 (<i>W. Davison</i>).	Hume Coll.
<i>h-k</i> . ♂ ad. sk.	Mt. Harriett, March 1873 (<i>W. Davison</i>).	Hume Coll.
<i>l, m, n</i> . ♂; <i>o</i> . ♀ ad. sk.	S. Andaman, Jan. and March (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>p-v</i> . ♂ ♀ ad. sk.	S. Andaman, March, April, July, Oct. 1873 (<i>R. J. Wimberley</i>).	Hume Coll.
<i>w-x</i> . ♂ ad.; <i>y</i> . ♀ ad. sk.	Port Moutat, Jan., April 1873 (<i>W. Davison</i>).	Hume Coll.
<i>b', c'</i> . ♂ ad. sk.	Aberdeen, March, April 1873 (<i>W. Davison</i>).	Hume Coll.
<i>d'</i> . ♂ ad. sk.	Macpherson's Straits, Mar. 8, 1873.	Hume Coll.
<i>e'</i> . ♂ ad. sk.	Tip Island, April 5, 1874 (<i>W. Davison</i>).	Hume Coll.
<i>f, g'</i> . ♀ ad. sk.	Camorta, Nicobars, Feb. 1873 (<i>W. Davison</i>).	Hume Coll.

8. *Poliopsar erythropygius*.

Sturnia erythropygia, *Blyth, J. A. S. Beng.* xv. pp. 34, 360 (1846);
Hume, Str. F. 1879, p. 106.

Temenuchus erythropygius, *Gray, Hand-l. B.* ii. p. 21, no. 6304
(1870); *Hume, Str. F.* 1874, p. 247.

Temenuchus (*Sturnia*) *erythropygia*, *Ball, Str. F.* 1873, p. 76.

Acridotheres erythropygius, *Giebel, Thes. Orn.* i. p. 266 (1872).

Poliopsar erythropygius, *Sharpe, Ibis*, 1888, p. 476.

Adult male. Similar to *P. andamanensis*, but larger, with the whole of the lower back and rump ferruginous; upper tail-coverts ashy, with a reddish tinge; tail similar to that of *P. andamanensis*, but all the feathers tipped with ferruginous instead of white; under

- Malabar Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 30 (1783).
Turdus malabaricus, *Gm. Syst. Nat.* i. p. 816 (1788).
Acridotheres malabaricus, *Bonn. et Vieill. Enc. Méth.* ii. p. 691 (1823).
 ? *Gracula cinerea*, *Less. Traité*, p. 402 (1831).
Maina affinis, *Hodgs. J. A. S. Beng.* v. p. 771 (1836).
Pastor pagodarum (*nec Gm.*), *McClell. P. Z. S.* 1839, p. 163; *Blyth & Wald. B. Burm.* p. 90 (1875); *Hume & Davison, Str. F.* vi. p. 389 (1878); *Ball, Str. F.* vii. p. 221 (1878); *Cripps, t. c.* p. 292; *Hume, Str. F.* 1879, p. 106; *Vidal, Str. F.* 1880, p. 71; *Reid, Str. F.* 1881, p. 53; *Davidson, Str. F.* 1882, p. 312; *Davison, Str. F.* 1883, p. 401; *Oates, B. Brit. Burm.* i. p. 387 (1883); *Taylor, Str. F.* 1887, p. 462; *Salvad. Ann. Mus. Genov.* (2) iv. p. 606 (1887).
Pastor cinereus, *Jerd. Madr. Journ.* xi. p. 23 (1840).
Sturnia malabarica, *Blyth, J. A. S. Beng.* xiii. p. 363 (1844); *id. Cat. B. Mus. As. Soc.* p. 110 (1849); *Tytler, Ann. & Mag. Nat. Hist.* (2) xiii. p. 363 (1854); *Hume, Str. F.* xi. p. 265 (1888).
Pastor malabaricus, *Jerd. Madr. Journ.* xiii. p. 133 (1844).
Pastor caniceps, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pla. 271, 271* (no. 271-2); *id. in Gray's Zool. Misc.* p. 84 (1844).
Pastor blythii (*nec Jerd.*), *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 104 (1846).
Heterornis malabaricus, *Gray, Gen. B.* ii. p. 335 (1847); *Bp. Conspect.* i. p. 419 (1850).
Temenuchus malabaricus, *Cab. Mus. Hein. Th.* i. p. 204 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 530 (1854); *Blyth, J. A. S. Beng.* xxxix. p. 342, note (1862); *Jerd. B. Ind.* ii. p. 330 (1863); *Beavan, Ibis*, 1868, p. 171; *Brooks, Ibis*, 1869, p. 59; *Bulger, t. c.* p. 169; *Gray, Hand-l. B.* ii. p. 26, no. 6293 (1870); *Hume, Nests & Eggs Ind. B.* p. 433 (1873); *Ball, Str. F.* 1874, p. 419; *Butler, Str. F.* 1875, p. 494; *Armstr. Str. F.* 1876, p. 332; *Hume, t. c.* p. 402; *Hume, Str. F.* 1877, p. 38; *Butler, t. c.* p. 230; *Anderson, Rep. Zool. Yunnan Exped.* p. 596 (1878); *Scully, Str. F.* 1879, p. 330.
Poliopsar malabaricus, *Sharpe, Ibis*, 1883, p. 476.
Sturnia nemoricola, *Hume, Str. F.* xi. p. 266 (1888).

Adult male. General colour above ashy grey, everywhere washed with rosy brown, with which colour the feathers are edged; scapulars like the back; lower back, rump, and upper tail-coverts slightly more ashy than the back; wing-coverts blackish, externally ashy grey; bastard-wing, primary-coverts, and quills black, externally edged with purplish black and broadly tipped with ashy grey, the secondaries being likewise edged with this colour, the inner ones entirely ashy grey; centre tail-feathers ashy grey, the remainder blackish, edged with ashy grey and broadly tipped with chestnut, increasing towards the outermost; head and neck ruddy brown, with ashy-grey centres to the feathers; lores and sides of face also ruddy brown, the ear-coverts rather more dingy ash-colour: cheeks, chin, and throat delicate ashy, with reddish edges to the feathers; fore neck reddish brown, streaked with ashy; remainder of under surface reddish brown or deep cinnamon; thighs ashy; under tail-coverts cinnamon, the longer ones white; under wing-coverts and axillaries ashy with a slight ruddy tinge, those near the base of the

primaries whitish; quills below dusky brown, lighter along the inner edge: "bill blue at the base, green in the centre and yellow at the tip; legs and feet brownish olive; iris greyish white" (*E. A. Butler, MSS.*). Total length 7·5 inches, culmen 0·85, wing 3·9, tail 2·45, tarsus 0·9.

Adult female. Similar to the male, but everywhere much paler in colour: "legs and feet dusky yellow; iris white" (*E. A. Butler, MSS.*). Total length 7·75 inches, culmen 0·85, wing 3·9, tail 2·4, tarsus 0·9.

The specimens described are in full plumage, and it is evident that both the ruddy tinge on the upper parts and the beautiful red colour of the under surface become worn and faded as the breeding-season progresses, so that the upper parts fade to light grey, and the head is ashy grey with white shaft-streaks, while the sides of the face and throat are bleached to white.

Young. Browner than the adults, the head a little lighter ashy, with a white eyebrow like the sides of the face; ear-coverts and under surface of body pale ochreous brown, white on the throat.

Hab. Indian Peninsula, extending into Assam and the Burmese provinces to Cochin China.

a. Ad. sk.	Travancore (<i>F. Day</i>).	India Museum.
b, c. Ad. sk.	Coorg.	Tweeddale Coll.
d. ♂ ad. sk.	Wynaad, Nov. 21, 1877 (<i>J. Darling</i>).	Hume Coll.
e. ♂ ad. sk.	Mysore, Feb. 2, 1882.	W. Davison, Esq. [P.]
f, g. Ad. sk.	Malabar.	
h-o. ♂ ad.	Belgaum, Jan., Feb., March, 1880 (<i>E. A. Butler</i>).	Hume Coll.
p. Ad. sk.	Bangalore.	Hume Coll.
q, r. Ad. sk.	Madras.	Rev. H. H. Baber [P.].
s. Ad. sk.	Madras (<i>T. C. Jerdon</i>).	Gould Coll.
t. ♂ ad. sk.	Pothanore, Dec. 10, 1868 (<i>A. R. R. Theobald</i>).	Hume Coll.
u-w. ♂ ad.; x, y. ♀ ad.; z-c'. Juv. sk.	Raipur.	Hume Coll.
d', e'. Ad. sk.	Raipur.	R. B. Sharpe, Esq. [P.]

x', y' . ♂ ad. sk.	Etawah, April 1869 (<i>W. E. Brooks</i>).	Hume Coll.
z', a . Ad. sk.	Gondah, Oudh (<i>S. Pinwill</i>).	Tweeddale Coll.
$\beta-\zeta$. Ad. sk.	Gondah.	Pinwill Coll.
η, θ, ι . ♀ ad. sk.	Jamore, Sarun Dist., March 1869 (<i>R. M. Adam</i>).	Hume Coll.
κ, λ . ♂ ad. sk.	Lallgunj, April 24, 1869 (<i>R. M. Adam</i>).	Hume Coll.
μ . Ad. sk.	Behar.	Hodgson Coll.
ν . ♀ ad. sk.	Barrackpur, Jan. 1876 (<i>J. Biddulph</i>).	Tweeddale Coll.
ξ . ♂ ad. sk.	Calcutta (<i>J. Biddulph</i>).	Tweeddale Coll.
\omicron, π . ♂ ♀ ad. sk.	Calcutta, Dec. 22, 1872.	Hume Coll.
ρ, σ . ♂ ♀ ad. sk.	Maunbhoom, Jan. 1865 (<i>R. C. Beavan</i>).	Tweeddale Coll.
τ, υ . Imm. sk.	Nepal.	Tweeddale Coll.
$\phi-\omega$. Ad. sk.	Nepal.	Hodgson Coll.
$a'-\gamma'$. Ad. sk.	Nepal (<i>B. H. Hodgson</i>).	(Types of <i>P. caniceps</i>) India Museum.
δ' . Ad. sk.	Nepal Valley, May 1, 1877 (<i>J. Scully</i>).	Hume Coll.
ϵ', ζ' . ♂ ad. sk.	Nepal Valley, June, Sept. 1877 (<i>J. Scully</i>).	Hume Coll.
η' . Ad. sk.	Sikhim Terai, Dec. 1872 (<i>L. Mandelli</i>).	Hume Coll.
θ', ι' . Ad. sk.	Sikhim, June 1874 (<i>L. Mandelli</i>).	Hume Coll.
κ' . Ad. sk.	Darjiling.	Hume Coll.
λ', μ . Ad. sk.	Darjiling Terai, Jan., Feb. 1873 (<i>L. Mandelli</i>).	Hume Coll.
ν', ξ', \omicron' . Ad. sk.	Buxa Doars, Jan. 1873 (<i>L. Mandelli</i>).	Hume Coll.
$\pi'-\upsilon'$. Ad. sk.	Bhotan Doars, Jan., Feb., Dec. (<i>L. Mandelli</i>).	Hume Coll.
ϕ' . Ad. sk.	Assam (<i>J. McClelland</i>).	India Museum.
χ' . Ad. sk.	Assam (<i>A. W. Chennell</i>).	Tweeddale Coll.
ψ', ω' . ♂ ♀ ad. sk.	Tippook, Assam, March 22, 1877 (<i>J. Cockburn</i>).	Hume Coll.
a, b . ♂ ad. sk.	Dhollah, April 16, 1877 (<i>J. Cockburn</i>).	Hume Coll.
c, d . Ad. ; e . ♀ ad. sk.	Sadhya, April 1877 (<i>J. Cockburn</i>).	Hume Coll.
$f-\omicron$. ♂ ♀ et ♂ juv. sk.	Dibrughur, April, May, July, Dec. (<i>J. R. Cripps</i>).	Hume Coll.
p, q, r . ♂ ♀ ad. sk.	N. Khasia Hills, Febr., Dec. 1876 (<i>A. W. Chennell</i>).	Tweeddale Coll.
s . Ad. sk.	Cachar (<i>J. Inglis</i>).	Hume Coll.
$t-a'$. ♂ ♀ ad. sk.	Manipur, Febr., March 1881 (<i>A. O. H.</i>).	Hume Coll.
b' . ♂ ad. sk.	Soognoo, March 26, 1881 (<i>A. O. H.</i>).	Hume Coll.
c' . ♂ ad. sk.	Moirang, March 22, 1881 (<i>A. O. H.</i>).	Hume Coll.
d' . ♂ ad. sk.	Bishnoopur, March 13, 1881 (<i>A. O. H.</i>).	Hume Coll.
e' . Ad. sk.	Phalel, April 10, 1881 (<i>A. O. H.</i>).	Hume Coll.

<i>f', g'.</i> ♂ ♀ ad. sk.	Aimole, April 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>h'.</i> Ad. sk.	Dacca.	Hume Coll.
<i>i'.</i> Ad. sk.	Mungla, Sanda Valley, May 19, 1868.	Dr. J. Anderson [C.].
<i>k', l'.</i> ♂ ad. sk.	Akyab, March 1876 (<i>J. Armstrong</i>).	Hume Coll.
<i>m'.</i> Ad. sk.	Rangoon.	Hume Coll.
<i>n'.</i> ♀ ad. sk.	Rangoon, Dec. 14, 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>o'.</i> ♀ ad. sk.	Syriam, Jan. 10, 1876 (<i>J. Armstrong</i>).	Hume Coll.
<i>p'-s'.</i> ♂ ♀ ad. sk.	Lower Pegu, Jan., Oct.	Oates Coll.
<i>t'.</i> Ad. sk.	Tonghoo (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>u'-y'.</i> ♂ ♀ ad. sk.	Pahpoon, Jan., Dec. (<i>W. Davison</i>).	Hume Coll.
<i>z'.</i> ♀ ad. sk.	Sinzaway Forest, Younzaleen River, April 18, 1877 (<i>C. T. Bingham</i>).	Hume Coll.
<i>a'', b''.</i> ♀ ad.; <i>c''.</i> ♀ juv. sk.	Kaukaryit, May 1878 (<i>J. Darling</i>).	Hume Coll.
<i>d''.</i> ♂ juv. sk.	Kaukaryit, June 2, 1881.	C. T. Bingham, Esq. [P.].
<i>e''.</i> ♀ ad. sk.	Wippitan, Dec. 9, 1878 (<i>J. Darling</i>).	Hume Coll.
<i>f'', g''.</i> ♂ ♀ ad. sk.	Theinzeik, Dec. 1876 (<i>W. Davison</i>).	Hume Coll.
<i>h''.</i> ♀ ad. sk.	Thatone, Dec. 19, 1876 (<i>W. Davison</i>).	Hume Coll.
<i>i''.</i> ♀ ad. sk.	Salween River, near Moulmein, Jan. 27, 1876 (<i>W. Davison</i>).	Hume Coll.
<i>k''.</i> ♀ ad. sk.	Moulmein, March 5, 1874 (<i>W. Davison</i>).	Hume Coll.
<i>l'-r'.</i> ♂ ♀ ad. sk.	Amherst, Jan., Feb., March 1877 (<i>W. Davison</i>).	Hume Coll.
<i>s'.</i> Ad. sk.	Mergui, Jan. 7, 1879 (<i>W. Davison</i>).	Hume Coll.
<i>t'', u''.</i> ♂ ad. sk.	Mergui, Feb. 1, 1875 (<i>W. Davison</i>).	Hume Coll.
<i>v'', w''.</i> ♂ ♀ ad. sk.	S. Tenasserim, Dec. 20, 1876.	Oates Coll.
<i>x''.</i> Ad. sk.	Cochin China, Nov. 1867.	M. E. Pierre [P.].

Adult male. Similar to *P. malabaricus*, but very much paler grey, and having the bastard-wing, primary-coverts, and bastard-primary white. The under surface is ashy whitish with only a slight rosy tinge, and the under tail-coverts are white without any chestnut. Total length 7 inches, culmen 0·8, wing 3·9, tail 2·55, tarsus 0·9.

Adult female. Like the male: "bill dusky green at base, brighter in the middle and yellow towards the tip; legs and feet pale brown; iris dull white" (*J. Armstrong*). Total length 7·5 inches, culmen 0·75, wing 4, tail 2·55, tarsus 0·95.

Although specimens with fully developed white bastard-wings are distinct enough from *P. malabaricus*, yet every kind of intermediate link is found between the two species, which appear, from the evidence of specimens in the Hume collection, undoubtedly to interbreed on the confines of their ranges.

Hab. Burmah and Tenasserim.

a. Ad. sk.	Upper Burmah.	Dr. Jerdon [P.].
b. Ad. sk.	Burmah.	Tweeddale Coll.
c-h. ♂ ♀ ad. sk.	Rangoon, Oct., Nov., Dec. 10, 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
i. Ad. sk.	Rangoon.	Hume Coll.
k, l. ♂ ♀ ad. sk.	Elephant Point, Rangoon, Dec. 1875 (<i>J. Armstrong</i>).	Hume Coll.
m. ♀ ad. sk.	Elephant Point, Jan. 22, 1876 (<i>J. Armstrong</i>).	Hume Coll.
n. ♀ ad. sk.	China Bakeer, Dec. 19, 1875 (<i>J. Armstrong</i>).	Hume Coll.
o. Ad. sk.	Pegu.	W. T. Blanford, Esq. [P.].
p. ♂ ad. sk.	Pegu, May 31, 1876 (<i>E. W. Oates</i>).	R. B. Sharpe, Esq. [P.].
q. ♂ ad. sk.	Lower Pegu, Jan. 25, 1878 (<i>E. W. Oates</i>).	R. B. Sharpe, Esq. [P.].
r-v. ♂ ♀ ad. sk.	Lower Pegu, Feb., May, Oct., Dec.	Oates Coll.
x. Ad. sk.	Tonghoo (<i>R. G. W. R.</i>).	Tweeddale Coll.
y, z. ♂ ♀ ad. sk.	Tonghoo, Jan., Febr. 1874 (<i>R. G. W. R.</i>).	Tweeddale Coll.
α', β'. ♂ ad. sk.	Pahpoo, Tenasserim, Jan. 1874 (<i>W. Davison</i>).	Hume Coll.
γ'. ♂ ad. sk.	Kaukaryit, May 9, 1878 (<i>J. Darling</i>).	Hume Coll.
δ'. ♂ ad. sk.	Thoungyah, Dec. 8, 1878 (<i>J. Darling</i>).	Hume Coll.
ε'. ♂ ad. sk.	Thoungyeen Valley, Sept. 14, 1879 (<i>C. T. Bingham</i>).	Hume Coll.
ζ'. ♂ ad. sk.	Wippitan, Dec. 6, 1878 (<i>J. Darling</i>).	Hume Coll.
η'-ι'. ♂ ; κ', λ'. ♀ ad. sk.	Moulmein, Jan., March, Dec. (<i>W. Davison</i>).	Hume Coll.
μ', ν'. ♂ ♀ ad. sk.	Thatone, Jan., Dec. 1876 (<i>W. Davison</i>).	Hume Coll.
ο', π'. ♂ ♀ ad. sk.	Thamban, Jan. 1878 (<i>W. Davison</i>).	Hume Coll.
ρ'. ♂ ad. sk.	Wimpong, Dec. 31, 1876 (<i>W. Davison</i>).	Hume Coll.

r'. ♂ ad. sk.	Kanee, Hounghraw River, Mar. 7, 1879 (W. Davison).	Hume Coll.
s'. ♂ ad. sk.	Assoon, March 4, 1877 (W. Davison).	Hume Coll.
t'. ♂ ad. sk.	Pabvouk, March 13, 1874 (W. Davison).	Hume Coll.
w'. Ad. sk.	Meetan, Feb. 5, 1877 (W. Davison).	Hume Coll.
v'-d'. ♂ ♀ ad. sk.	Amherst, Jan., March 1877 (W. Davison).	Hume Coll.

10. *Poliopsisar blythii*.

- Pastor malabaricus* (nec Gm.), *Jerd. Madr. Journ.* xi. p. 22 (1840).
Sturnia dominicana, *Blyth, J. A. S. Beng.* xiii. p. 363 (1814).
Pastor blythii, *Jerd. Madr. Journ.* xiii. p. 138 (1844); *id. Ill. Ind. Orn.* pl. 22 (1847).
Sturnia blythii, *Blyth, J. A. S. Beng.* xvi. p. 470 (1847); *id. Cat. B. Mus. As. Soc.* p. 110 (1849); *Hume, Str. F.* ix. p. 228; *Butler, t.c.* p. 237; *W. Davison, Str. F.* 1883, p. 401; *Taylor, Str. F.* 1887, p. 462.
Temenuchus blythii, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 531 (1856); *Gray, Hand-l. B.* ii. p. 20, no. 6297 (1870).
Poliopsisar blythii, *Sharpe, Ibis*, 1888, p. 476.

Adult male. General colour above delicate ashy grey; wing-coverts like the back, the greater coverts paler and more hoary grey externally; bastard-wing, primary-coverts, and quills black, externally glossed with steel-green, the primaries tipped with hoary grey, the secondaries externally hoary grey, and the innermost ones almost entirely of the latter colour; centre tail-feathers hoary grey, the next ones blackish, externally hoary grey, chestnut at the ends, the latter colour increasing gradually towards the outer feathers; crown of head, occiput, and nape white, with a pinkish tinge, the feathers long and lanceolate, those of the hind neck also long and having white shafts; lores, sides of face, ear-coverts, cheeks, throat, and breast white; lower breast, abdomen, sides of body, flanks, and under tail-coverts cinnamon-rufous; thighs ashy; under wing-coverts and axillaries ashy whitish; quills below dusky; "bill blue

rufous, except on the under tail-coverts; sides of face dull whitish, as well as an indistinct eyebrow.

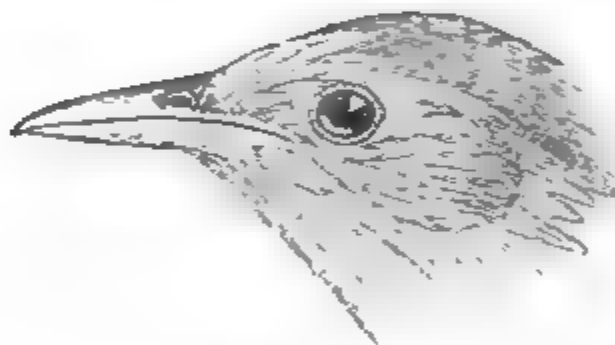
The *adult females* never seem to get a pure white head like the males, but have the crown always grey. *Young males* at first resemble them in this respect.

Hab. Southern India.

a-c. Ad. sk.	Malabar.	
d-e. ♂ ♀ et juv. sk.	Belgaum, June, July, Aug., Sept., Oct. (<i>E. A. Butler</i>).	Hume Coll.
f. ♂ ad.; g', h. ♂ juv.; i. ♀ juv. sk.	Wynaad, May 1881 (<i>W. Durison</i>).	Hume Coll.
k. Ad. sk.	Travancore, March 9, 1876 (<i>F. W. Bourdillon</i>).	Hume Coll.
l. Ad. sk.	Madras (<i>Jerdon</i>).	India Museum.
m', n'. Ad. sk.	Malabar.	Tweeddale Coll.
o'. Juv. sk.	Coorg.	Tweeddale Coll.

3. STURNORNIS.

Sturnornis, *Legge, B. Ceylon*, p. 679 (1879) Type. *S. senex*.



Head of *Sturnornis senex*.

Range. Confined to Ceylon.

1. *Sturnornis senex*.

- Heterornis senex*, *Bp. Conspectus* i. p. 419 (1850, ex *Temm. MSS.*).
Heterornis albofrontata, *Layard, Ann. & Mag. Nat. Hist.* (2) xii. p. 217 (1854).
Temenuchus albofrontatus, *Blyth, Ibis*, 1867, p. 209.
Temenuchus senex, *Gray, Hand-l. B.* ii. p. 20. no. 6206 (1870);
Hodds. P. Z. S. 1867, p. 462; *Legge, Ibis*, 1874, p. 23.
Acridotheres albifrontatus, *Giebel, Thes. Orn.* i. p. 265 (1872).
Sturnia albofrontata, *Legge, Ibis*, 1875, p. 308.
Sturnia daurica (nec *Pall.*), *Sicinh. Ibis*, 1875, p. 119.
Sturnornis senex, *Legge, B. Ceylon*, p. 680, pl. 28 (1879).
Sturnia senex, *Hume, Str. F.* 1870, p. 100.

Adult male. General colour above black, with a gloss of ashy and green; upper tail-coverts also black, with a green gloss; wing-coverts and quills black, externally edged with glossy green; tail-

feathers black, washed externally with glossy green; crown of head and hind neck like the back, the latter narrowly streaked with white shaft-lines; forehead, lores, eyebrow, sides of face, ear-coverts, cheeks, and throat white, the ear-coverts edged with pale brown, producing a slightly streaked appearance; sides of neck black, streaked with white; fore neck and remainder of under surface of body dull greyish brown, streaked with white down the middle of the feathers; abdomen ashy white; sides of upper breast and sides of neck blackish streaked with white; thighs brown, streaked with white; under tail-coverts white; under wing-coverts blackish; axillaries ashy brown with white shaft-lines; quills below dusky brown, a little more ashy along the inner edge: "bill pale bluish horny, the gape and base bluish; legs and feet plumbeous blue; eyelid bluish; iris white, with a narrow inner centre of reddish brown; orbital skin and eyelid dull bluish" (*W. V. Legge*). Total length 8·3 inches, culmen 0·9, wing 4·1, tail 2·7, tarsus 1·0.

"*Young*. Iris brown, with a faint grey outer edge; this increases, and in birds evidently still in the first year the proportions of white and brown in the iris are about equal, the former gradually increasing until it leaves the narrow brown circle; bill, legs, and feet as in the adult. In nest-plumage the forehead, head, and hind neck are concolorous and of a dull brown hue; a whitish superciliary stripe passes from the nostrils over the eye; the ear-coverts are sullied white, but the white of the throat seems to extend lower down, and to change abruptly into the dark grey of the chest; the lower parts, however, are not always equally dark; some examples have them pervaded with whitish; but the chief character of the under surface in the immature bird is the absence of the white mesial stripes, contrasting strongly with the grey of the rest of the feathers. The white of the forehead appears during the first year and increases with subsequent moults, which take place in August." (*W. V. Legge*.)

Hab. Ceylon.

a, b. ♂ ♀ ad. sk.	Ceylon, Jan. 1866 (<i>S. Chapman</i>).	Tweeddale Coll.
c. ♂ ad. sk.	Peak Forest, Aug. 17, 1870, <i>W. V. Legge</i> .	R. B. Sharpe, Esq. [P.].

Key to the Species.

- a.* Forehead entirely black.
a'. Bare area of face very large; no light streaks on the sides of the neck *jalla*, p. 57.
b'. Bare area of face much smaller; some very distinct streaks of drab-brown on the sides of the neck *contra*, p. 57.
b. Forehead and crown with narrow white streaks; feathers over the eye white, forming a distinct eyebrow; sides of neck with indistinct pale streaks *superciliaris*, p. 59.

1. *Sturnopastor jalla*. (Plate V. fig. 3.)

Pastor jalla, *Horsf. Trans. Linn. Soc.* xiii. p. 155 (1820); *Wagler, Syst. Av.*, *Pastor*, sp. 17 (1827).

Pastor oricularius, *Drap. Dict. Class.* vii. p. 153 (1841).

Sturnopastor jalla, *Gray, Gen. B.* ii. p. 336 (1847); *Bp. Consp.* i. p. 420 (1850); *Gray, Hand-l. B.* ii. p. 22, no. 6313 (1870); *Nichols. Ibis*, 1881, p. 153; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlv. p. 217 (1884), xlv. p. 393 (1885).

Psarites jalla, *Cab. Mus. Hein.* Th. i. p. 203 (1850).

Sturnopastor contra (*nec L.*), *Tweedd. Ibis*, 1877, p. 319.

Adult male. Very similar to *S. contra*, but without any white streaks on the forehead, and further distinguished by having the region of the eye yellow, extending in a bare patch backwards above the ear-coverts: "iris pale yellow" (*A. R. Wallace*). Total length 9.5 inches, culmen 1.2, wing 4.85, tail 2.55, tarsus 1.2.

Adult female. Similar to the male, but browner. Total length 8.5 inches, culmen 1.1, wing 4.8, tail 2.6, tarsus 1.2.

Hub. Sumatra, Java, Bali, Madura.

- | | | |
|--------------------------------------|--|--------------------------------------|
| <i>a, b.</i> Ad.; <i>c.</i> Imm. sk. | Lampung, Sumatra (<i>E. C. Tweeddale Coll.</i> Buxton). | |
| <i>d.</i> Ad. sk. | Java (<i>Horsfield</i>). | India Museum [P.] (Type of species.) |
| <i>e, f.</i> Ad. sk. | Java. | |
| <i>g, h.</i> ♂ ♀ ad. sk. | Java (<i>Leiden Mus.</i>). | Salvin-Godman Coll. |
| <i>i.</i> ♂ ad. sk. | E. Java. | Wallace Coll. |
| <i>k.</i> Ad. sk. | E. Java (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| <i>l, m.</i> ♂ ad. sk. | Bali. | Wallace Coll. |
| <i>n.</i> ♂; <i>o, p.</i> ♀ ad. sk. | Madura, Nov. 1871 (<i>Dr. A. B. Meyer</i>). | Tweeddale Coll. |

2. *Sturnopastor contra*. (Plate V. fig. 1.)

The Contra from Bengall, *Albin, Nat. Hist. B.* iii. p. 20, pl (1740).

The Black and White Indian Starling, *Edwards, N. H. Birds*, p. 187, pl. 187 (1751).

L'Etourneau du Cap de Bonne Espérance, *Briss. Orn.* ii. p. 4 pl. xli. fig. 3 (1760); *Daubent. Pl. Enl.* iii. p. 280.

Sturnus contra, *Linn. Syst. Nat.* i. p. 290 (1760).

- d'Orn.* ii. p. 303 (1800); *Jerd. Madr. Journ.* xi. p. 20 (1840); *Blyth, J. A. S. Beng.* xiii. p. 306 (1844); *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 104 (1846); *Tickell, J. A. S. Beng.* xvii. p. 301 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 100 (1849); *Tytler, Ann. & Mag. N. H.* (2) xiii. p. 368 (1854).
L'Etourneau pie, Montb. Hist. Nat. Ois. iii. p. 191 (1775).
Cape Stare, Lath. Gen. Syn. ii. pt. i. p. 5 (1783).
Sturnus capensis, Gm. Syst. Nat. i. p. 802 (1788).
Pastor contra, Wagler, Syst. Av., Pastor, sp. 18 (1827).
Sturnopastor contra, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. 275. figs. 1, 2 (no. 305); *Blyth, Ann. & Mag. Nat. Hist.* xii. p. 97 (1843); *Hodgs. in Gray's Zool. Misc.* p. 84 (1844); *Gray, Gen. B.* ii. p. 338 (1847); *Bp. Consp.* i. p. 420 (1850); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 520 (1856); *Beavan, Ibis,* 1864, p. 378; *Blyth, Ibis,* 1867, p. 38; *Beavan, Ibis,* 1868, p. 170; *Gray, Hand-l. B.* ii. p. 22, no. 6312 (1870); *Hume, Nests & Eggs Ind. B.* p. 426 (1873); *Bull, Str. F.* 1874, p. 418; *Hume, Str. F.* 1877, p. 38; *Bull, Str. F.* vii. p. 221 (1878); *Cripps, t. c.* p. 200; *Hume, Str. F.* 1879, p. 106; *Scully, t. c.* p. 320; *Reid, Cat. Lucknow Mus.* p. 122 (1887).
Psarites contra, Cab. Mus. Hein. Th. i. p. 203 (1850).

Adult male. General colour above blackish brown; scapulars externally white, forming a shoulder-patch; rump white; upper tail-coverts blackish brown; lesser wing-coverts pure white; median and greater coverts blackish brown, edged with greenish black, the latter series inclining to dark bronzy brown; bastard-wing, primary-coverts, and quills black, edged with greenish black, the primaries margined with white near the ends, the secondaries more bronzy brown; tail-feathers blackish, with a scarcely perceptible fringe of white at the ends; crown of head, nape, and hind neck glossy greenish black, the forehead minutely tipped with white, as also the feathers above the eye; lorcs, eyelid, sides of face, and ear-coverts pure white; cheeks glossy black; throat, sides of neck, and fore neck glossy greenish black; on the sides of the upper neck some streaks of white or drab-brown, some of the feathers on the sides of the upper mantle externally drab-brown; remainder of the under surface of body pale vinaceous grey, a little more isabelline on the abdomen: thighs externally blackish, internally white like the under tail-coverts, under wing-coverts and axillars white; quills

(1878); *Hume, Str. F.* 1870, p. 106; *Bingham, Str. F.* ix. p. 192 (1880); *Oates, B. Brit. Burm.* i. p. 378 (1883); *Salvad. Ann. Mus. Civic. Genov.* (2) iv. p. 602 (1887), v. p. 614 (1888); *Hume, Str. F.* xi. p. 261 (1888).

Sturnopastor contra, var. *superciliaris*, *Anderson, Zool. Exped. Yunnan, Birds*, p. 595 (1878).

Adult male. Very similar to *S. contra*, but a darker bird, and distinguished by the following points; viz. the white streaks on the forehead extending over the fore part of the crown, the lores and eyebrow entirely white, and the median wing-coverts tipped with white: "gape and basal half of the bill orange, the terminal half yellowish white; inside of mouth black; eyelids orange-yellow; iris pale yellow; legs and claws brown" (*E. W. Oates*). Total length 9 inches, culmen 1.15, wing 4.6, tail 2.6, tarsus 1.2.

Adult female. Similar to the male, but a little browner. Total length 8.5 inches, culmen 1.15, wing 4.3, tail 2.45, tarsus 1.15.

Young. Much browner than the adults, with the white on the scapulars and wing-coverts sullied, the head dusky blackish; eyebrow, sides of face, and ear-coverts also sullied white; throat and fore neck dusky brown, with more or less blackish, especially along the malar line. The plumage of the under surface, when fresh moulted, is lavender-grey.

Hab. Replaces *S. contra* from Manipur throughout the Burmese provinces.

- a-f.* ♂ ♀ ad. sk. Manipur, Feb., March 1881 (*A. Hume Coll.*
O. H.).
g, g'. ♂ ♀ ad. sk. Moirang, Manipur, March 1881 *Hume Coll.*
(*A. O. H.*).
h. ♂ ad. sk. Kocskin Koollel, Manipur, Apr. 6, *Hume Coll.*
1881.
i, k, l. ♂ ad. sk. Elephant Point, Dec. 29, 1875 *Hume Coll.*
(*Dr. J. Armstrong*).
m. ♂ ad. sk. Akyab, March 20, 1876 (*Dr. J. Hume Coll.*
Armstrong).
n. ♂ ad. sk. China Bakeer, Dec. 20, 1875 (*Dr. Hume Coll.*
Armstrong).
o, p. ♀ ad. sk. Tonghoo, April 1874 (*R. G. Tweeddale Coll.*
H. E.).

x' . ♀ ad. sk.	Amherst, Jan. 3, 1877.	Hume Coll.
y' . Ad. sk.	Tavoy (Capt. Briggs).	Gould Coll.
$z'-v.$ ♂ ♀ ad. et juv. sk.	Tavoy, April, May 1874 (<i>W. Davison</i>).	Hume Coll.
$\phi.$ ♂ ad. sk.	Mergui, Jan. 1879 (<i>J. Darling</i>).	Hume Coll.
$x-\beta'$. ♂ ad.; γ' . ♂ imm. sk.	Mergui, June, Nov. (<i>W. Davison</i>).	Hume Coll.

5. DILOPHUS.

Dilophus, *Vieill. Analyse*, p. 34 (1816) Type. *D. carunculatus*.

Range. Confined to Africa and Southern Arabia.

1. *Dilophus carunculatus*.

- Cockscomb Stare, *Lath. Gen. Syn.* ii. pt. i. p. 9 (1783).
Gracula carunculata, *Gm. Syst. Nat.* i. p. 399 (1788).
Sturnus gallinaceus, *Lath. Ind. Orn.* i. p. 324 (1790).
 Le Porte-Lambeaux, *Lecaill. Ois. d'Afr.* ii. p. 178, pls. 183, 194 (1799).
Gracula gallinacea, *Daud. Traité*, ii. p. 291 (1800); *Rüpp. Neue Wirb., Vög.* p. 115 (1825-40).
Gracula larvata, *Shaw, Gen. Zool.* vii. p. 408 (1809).
Dilophus gallinaceus, *Vieill. N. Dict. d'Hist. Nat.* ix. p. 442 (1817).
Acridotheres gallinaceus, *Bonn. et Vieill. Enc. Méth.* ii. p. 691 (1823).
Pastor carunculatus, *Wagl. Syst. Ar.*, Pastor, sp. 16 (1827).
Dilophus carunculatus, *Rüpp. Syst. Uebers.* p. 76 (1845); *Gray, Gen. B.* ii. p. 336 (1847); *Bp. Consp.* i. p. 420 (1850); *Cab. Mus. Hein. Th.* i. p. 206 (1850); *Strickl. & Schl. Contr. Orn.* 1852, p. 149; *Heugl. Syst. Uebers.* p. 37 (1856); *Monteiro, P. Z. S.* 1865, p. 93; *Layard, B. S. Afr.* p. 177 (1867); *id. Ibis*, 1868, p. 246, 1869, p. 74; *Ayres, Ibis*, 1869, p. 394; *Heugl. Orn. N.O.-Afr.* i. Abth. ii. p. 529 (1870); *Gray, Hand-l. B.* ii. p. 20, no. 6305 (1870); *Sharpe, P. Z. S.* 1871, p. 133; *id. Cat. Afr. B.* p. 56 (1871); *Gurney in Anders. B. Dam.-Id.* p. 162 (1872); *Buckley, Ibis*, 1874, p. 378; *Ayres, Ibis*, 1879, p. 395; *Sharpe in Oates' Matabele Land*, App. p. 316 (1881); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 105 (1881); *Bocage, Orn. Angola*, p. 302 (1881); *Salvin, Cat. Strickl. Coll.* p. 273 (1882); *Shelley, P. Z. S.* 1882, p. 307; *Holub & Pelz. Beitr. Orn. Südaf.* p. 108 (1882); *Butler, Feilden, & Reid, Zool.* 1882, p. 257; *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 197 (1884); *Sharpe, ed. Layard's B. S. Afr.* pp. 421, 845 (1884); *Yerbury, Ibis*, 1886, p. 18; *Shelley, Ibis*, 1888, p. 303; *Salvad. Ann. Mus. Civic. Genov.* (2) vi. p. 297 (1888).

Adult male. General colour above light isabelline drab; scapulars slightly more ashy; rump and upper tail-coverts rather whiter; wing-coverts ashy isabelline, whiter on the edges of the median and greater coverts; bastard-wing, primary-coverts, quills, and tail-feathers black, externally glossed with steel-green, the inner primary-coverts white; crown of head bare, with two erect wattles in the centre; all the sides of the face also bare, with a pendent wattle in the centre of the latter; the feathers, which come to a point on the

sides of the throat behind the bare cheeks, are isabelline drab, like those of the rest of the under surface; thighs, under tail-coverts, under wing-coverts, and axillaries rather paler and more isabelline whitish; quills below blackish brown. Total length 8 inches, culmen 0·85, wing 4·8, tail 2·65, tarsus 1·15.

Adult female. Browner than the male, the white rump showing conspicuously; upper tail-coverts brown; wing-coverts brown; wings browner than in the male, the primary-coverts black, like the bastard-wing and quills; head feathered like the back; lores dusky; sides of face and under surface of body isabelline, whiter on the centre of the abdomen. The only bare parts on the head are the region of the eyes and a yellow patch behind the latter, as well as the sides of the throat. Total length 8 inches, culmen 0·8, wing 4·6, tail 2·55, tarsus 1·2.

Males with the wattled head are very rare in collections. The young birds resemble the old females, and have brown or black primary-coverts. Some birds are lighter drab than the adult females, and show the white on the scapulars and wing-coverts, and have also the primary-coverts white, but the head and throat are feathered. These may be young males or old birds in winter plumage.

Hab. Africa generally, excepting the forest-region of the west coast; Southern Arabia.

a, b. Ad. sk.	Aden.	Gould Coll.
c. Juv. sk.	Ilusrah, Aden, Aug. 5, 1883.	Major Yerbury [P.].
d. Juv. sk.	Senaar.	Sharpe Coll.
e. Juv. sk.	Tigré (<i>Eder</i>).	Sharpe Coll.
f. ♂ juv. sk.	Lamu, E. Africa, Aug. 22, 1885.	F. J. Jackson, Esq. [P.].
g, h, i. Ad.; k. Juv. sk.	Tete, Zambesi (<i>Sir J. Kirk</i>).	Livingstone Exped.
l. Juv. sk.	1st Makalaka Kraal, Matabele, Sept. 1 (<i>F. Oates</i>).	W. E. & C. G. Oates, Esqs. [P.].
m. ♂ ad. sk.	Tati, Matabele Land, Nov. 18, 1874 (<i>F. Oates</i>).	W. E. & C. G. Oates, Esqs. [P.].
n. Juv. sk.	Ramaqueban River, Sept. 4, 1873 (<i>F. Oates</i>).	W. E. & C. G. Oates, Esqs. [P.].
o. Juv. sk.	Transvaal, <i>T. Lutes</i> .	Sharpe Coll.

6. PASTOR.

	Type.
Pastor, <i>Temm. Man. d'Orn.</i> i. p. 83 (1815)	<i>P. roseus</i> .
Psaroides, <i>Vieill. Analyse</i> , p. 42 (1816)	<i>P. roseus</i> .
Boscis, <i>Brehm, Isis</i> , 1828, p. 1282	<i>P. roseus</i> .
Pecuaris, <i>Temm. Man. d'Orn.</i> iii. p. 76 (1835)	<i>P. roseus</i> .
Thremnophilus, <i>Macgill. Hist. Brit. B.</i> i. p. 610 (1837)	<i>P. roseus</i> .
Nomadites, " <i>Peteniz</i> ," <i>teste Bp. Cat. Met. Ois. Eur.</i> p. 44 (1842)	<i>P. roseus</i> .

Range. Of irregular occurrence in Central and Western Europe. Breeds in Central Asia, and the countries east of the Mediterranean, though it has been known to nest in Italy on one occasion. Winters in the Indian Peninsula.

1. Pastor roseus.

- Rose or Carnation-coloured Ouzel, *Edwards, Nat. Hist. B.* i. p. 20, pl. 20 (1743).
 Le Merle couleur de rose, *Briss. Orn.* ii. p. 250 (1760); *Montb. Hist. Nat. Ois.* iii. p. 348, pl. 22 (1775).
Turdus roseus, *Linn. Syst. Nat.* i. p. 204 (1766); *Pall. Reis. Russ. Reichs.* ii. p. 491 (1773); *Gm. Syst. Nat.* i. p. 819 (1788); *Meyer, Vög. Liv- u. Esthl.* p. 103 (1815).
Sturnus roseus, *Scop. Ann.* i. p. 130 (1769); *Pall. Zoogr. Rosso-Asiat.* i. p. 420 (1811); *Nordm. in Démid. Vog. Russ. Mérid.* iii. p. 123 (1840); *Schl. Vog. Nederl.* pl. 147 (1854); *id. Dier. Nederl. Vog.* pl. xiv. figs. 6, 7 (1861); *Sundev. Svensk. Fogl.* pl. lxix. fig. 3 (1866).
 Le Merle couleur de rose de Bourgogne, *Daubent. Pl. Enl.* iv. pl. 251.
Turdus seleucis, *Forskål, Descr. Anim.* p. vi, no. 16 (1775); *Gm. Syst. Nat.* i. p. 837 (1788).
Sturnus asiaticus, *Wirsing, Vög. Taf.* 1 (*teste Latham*).
 Rose-coloured Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 50 (1783).
 Le Roselin, *Levaill. Ois. d'Afr.* ii. p. 190, pl. 96 (1799).
Psaroides roseus, *Vieill. Analyse*, p. 42 (1816).
Merula rosea, *Koch, Syst. bair. Zool.* p. 242 (1816); *Naum. Vög. Deutschl.* ii. p. 206, Taf. 63 (1822); *Keys. u. Blas. Wirb. Eur.* p. 170 (1840); *Linderm. Vög. Griechenl.* p. 73 (1860); *Borggr. Vogelf. Norddeutschl.* p. 84 (1869).
Pastor roseus, *Temm. Man. d'Orn.* i. p. 136 (1820); *Werner, Atlas, Omnivores*, pls. 21, 22 (1827); *Gould, B. Eur.* iii. pl. 212 (1837); *Dubois, Orn. Gal.* p. 103, pl. 67 (1839); *Crespon, Orn. Gard*, p. 82 (1840); *Schl. Rev. Crit. Ois. Eur.* p. 58 (1844); *Hodgs. Icon. med. in Brit. Mus.* pl. 270. figs. 1, 2 (nos. 673, 726); *id. in Gray's Zool. Misc.* p. 84 (1844); *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 103 (1846); *Gray, Gen. B.* ii. p. 334 (1847); *Blyth, Cat. B. Mus. As. Soc.* p. 111 (1849); *Thompson, B. Irel.* i. p. 295 (1849); *Bp. Consp.* i. p. 421 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 539 (1856); *Hewits. Eggs Br. B.* i. p. 217, pl. lv. fig. 2 (1856); *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 109 (1859); *Tristr. Ibis*, 1859, p. 33; *Powys, Ibis*, 1860, p. 137; *Rowley, Ibis*, 1861, p. 113; *Irby, t. c.* p. 231; *Jerd. B. Ind.* ii. p. 233 (1863); *Gray, List Brit. B.* p. 90 (1863); *Wright, Ibis*, 1864, p. 56; *Giglioli, Ibis*, 1865, p. 57; *Gould, B.*

- pl. 55 (1865); *Deyl et Garbe, Orn. Eur.* p. 235 (1867); *Blyth, Ibis*, 1867, p. 40; *Loche, Expl. Sci. Algér., Ois.* p. 127 (1867); *Beaman, Ibis*, 1868, p. 171; *Doderl. Anif. Sicil.* p. 72 (1869); *Blues & Buckley, Ibis*, 1870, p. 192; *Gray, Hand-l. B.* ii. p. 19, no. 6280 (1870); *Fritsch, Vög. Eur.* p. 227, pl. 22. figs. 10, 20 (1870); *Salvad. Faun. Ital., Ucc.* p. 167 (1871); *Saunders, Ibis*, 1871, p. 221; *Heugl. Orn. N.O.-Afr.* i. p. 500 (1870), iv. App. p. cxxvii (1871); *R. Gray, B. W. Scotl.* p. 160 (1871); *Harting, Handb. Brit. B.* p. 30 (1872); *Shelley, B. Egypt*, p. 157 (1872); *Severtz. Turkestan. Jevotn.* p. 64 (1873); *Hayes Lloyd, Ibis*, 1873, p. 413; *Brooke, t. c.* p. 247; *Dresser, B. Eur.* iv. p. 423, pl. 250 (1873); *Ball, Str. F.* 1873, p. 77; *Hume, t. c.* p. 208; *Adam, t. c.* p. 386; *Gould, B. Gt. Br.* iii. pl. 50 (1873, juv.); *Hume, Str. F.* 1874, p. 262; *Ball, t. c.* p. 410; *id. Str. F.* 1875, p. 200; *Butler, t. c.* p. 495; *Dresser, Ibis*, 1875, p. 238; *Danf. & Harms Brown, t. c.* p. 414; *Fallon, Ois. Belg.* p. 30 (1875); *Cordeaux, Ibis*, 1875, p. 184; *Scully, Str. F.* 1876, p. 164; *Fairb. t. c.* p. 260; *Hume, t. c.* p. 415; *Danf. East. Persia*, ii. p. (1870); *Butler, Str. F.* 1877, p. 230; *Finsch, Ibis*, 1877, p. 51; *Taczan. Bull. Soc. Zool. France*, ii. p. 148 (1877); *Tachan, Verh. z.-b. Wien*, xxvii. p. 195 (1877); *Newt. ed. Yarr. Brit. B.* ii. p. 243 (1878); *Betta, Zool.* 1878, p. 16; *Danf. Ibis*, 1878, p. 25; *Dubois, Faun. Vertebr. Belg.* pl. 55 (1878); *Davidson & Wenden, Str. F.* 1878, p. 85; *Butler, t. c.* p. 184; *Ball, t. c.* p. 221; *Gatke, Ibis*, 1879, p. 380; *Finsch, Verh. z.-b. Wien*, xxix. p. 204 (1879); *Leyge, B. Ceylon*, p. 673 (1879); *Hume, Str. F.* 1879, pp. 100, 456; *Doig, t. c.* p. 374; *St. John, Ibis*, 1880, p. 145; *Giglioli, Ibis*, 1881, p. 205; *id. Iconogr. Arif. Ital. fasc. x.* (1881); *Reid, Str. F.* x. p. 54 (1881); *Davidson, t. c.* p. 312; *Salv. Cat. Strickl. Coll.* p. 272 (1882); *Seeböhm, Ibis*, 1882, p. 215; *Bild. t. c.* p. 70; *B. O. U. List Br. B.* p. 60 (1883); *Hornoy & Tancré, MT. Orn. Ver. Wien*, 1883, p. 80; *C. W. Wilson, Ibis*, 1883, p. 575; *Davidson, Str. F.* x. p. 401 (1883); *Seeböhm, Hist. Br. B.* ii. p. 20 (1884); *Trust. Faun. & Flor. Palest.* p. 73 (1884); *Macph. Zool.* 1884, p. 330; *Radde, Orn. Cauc.* p. 152 (1884); *Murray, Vertebr. Faun. Sind*, p. 180 (1884); *Saviah. & Barnes, Ibis*, 1885, p. 128; *Tachan, MT. Orn. Ver. Wien*, 1885, p. 50; *Nikolinskai, Trud. St. Petersb.* xvii. p. 388 (1886); *Gigl. Anif. Ital.* p. 18; *Reid, Cat. Lucknow Mus.* p. 120 (1887); *Salvad. Elench. Ucc. Ital.* p. 184 (1887); *Lorenz, Beitr. Orn. Cauc.* p. 11 (1887); *Taylor, Str. F.* x. p. 462 (1887).
- Acridotheres roseus*, *Ranzani, Flem. Zool.* iii. pt. v. p. 177 (1823); *Rott. Orn. Pers.* pls. 177, 177 bis (1825); *Id. Iconogr. F. Ital.*

the back ; upper tail-coverts blue-black with a slight greenish gloss ; wing-coverts and quills black, externally glossed with steel-green, shaded with purplish ; the primaries light brown on the inner webs, blackish at the ends ; tail-feathers black, externally steel-green ; head strongly crested, black with a purple gloss, as also the hind neck, sides of face, ear-coverts, cheeks, throat, sides of neck, and fore neck ; chest and under surface of body clear rose-colour, brighter on the abdomen ; sides of body also rose-colour, the lower flanks and thighs purplish black ; under tail-coverts black with a steel-green gloss ; under wing-coverts black, edged with white, the axillaries externally rosy white ; quills below dusky, ashy along the inner web. Total length 8 inches, culmen 0·8, wing 5·1, tail 2·5, tarsus 1·25.

Adult female. Similar to the male, but with the colours not so bright and the crest much shorter. Total length 7·5 inches, culmen 0·85, wing 4·85, tail 2·5, tarsus 1·15.

Young. Different from the adults. General colour above pale earthy brown, the scapulars like the back ; lower back and rump slightly paler brown ; upper tail-coverts like the back, with darker brown centres ; lesser wing-coverts like the back ; median and greater coverts dark brown, edged with whity brown, whiter on the inner greater coverts ; bastard-wing, primary-coverts, and quills dark brown, fringed with whity brown, the inner secondaries edged with white like the adjoining greater coverts ; tail-feathers light brown, edged with whity brown ; crown of head like the back, only a trifle darker ; lores whitish as well as the eyelid ; sides of face and ear-coverts brown ; cheeks, chin, and upper throat white ; lower throat white, with dark brown central streaks ; sides of neck ashy brown ; fore neck, chest, and remainder of under surface of body light ashy brown, washed with creamy buff on the chest ; abdomen rather whiter ; lower flanks slightly mottled with dark brown centres ; thighs ochreous brown ; under tail-coverts light brown with whitish edges ; under wing-coverts and axillaries ashy with whitish edges ; quills below dusky, ashy along the inner edge : " bill above brownish ; gape and base of upper mandible yellowish ; tip of lower mandible dusky ; legs and feet fleshy ; iris brown " (*W. V. Legge*). Total length 8·5 inches, culmen 0·85, wing 5·05, tail 2·65, tarsus 1·2.

The description of the young bird is taken from a male procured at Burgasskeuy in Turkey, on the 14th of September by Mr. Robson. The birds arrive in India in this brown plumage, and moult in October into their first full plumage. This is heralded first of all by a darkening of the under tail-coverts, which become black with broad whitish edges ; a faint rosy tinge pervades the brown of the under surface ; an occasional black feather shows itself on the throat, and the quills are shed. The young males appear to gain the adult plumage at the first moult, but the females apparently take a much longer time, and are probably several years before they put on a full rosy plumage like the male. The winter plumage of the young seems to be like that of the adult, the rosy portions of the plumage

being obscured by dingy brown, while all the black parts are tipped with ashy whitish. The wings and tail are rather greener than in the adults.

Adults in winter have the whole of the plumage obscured, the rosy parts being hidden by dusky brown, and the black portions tipped with ashy or ochreous brown. The crest is short and not developed to any great extent before the advent of the summer plumage, which is gained by the shedding of the dusky tips to the feathers, apparently a very gradual process. All observers agree that the full rosy plumage takes a considerable time to acquire (*cf.* Antin. Naum. 1856, p. 404).

Hab. The same as that of the genus.

a. Ad. sk.	Berlin.	Salvin-Godman Coll.
b. Ad. sk.	Montpelier.	Baron Laugier [C.].
c. Ad. sk.	Genoa.	R. B. Sharpe, Esq. [P.].
d. ♂ juv. sk.	Turkey, Sept. 14, 1871 (<i>T. Robson</i>).	R. B. Sharpe, Esq. [P.].
d*. ♂ ad. sk.	Turkey, May 23 (<i>T. Robson</i>).	Shelley Coll.
e. ♂ ad. sk.	Tiflis (<i>F. Smith</i>).	Tweeddale Coll.
f. Ad. sk.	Persia.	C. Darwin, Esq. [P.].
g, h. Juv. sk.	Fao, Persian Gulf, Aug. 11, 1886.	W. D. Cumming, Esq. [P.].
i. ♀ ad. sk.	Saissan.	Dr. O. Finsch [C.].
k. ♂ ad. sk.	Alakul, June 18, 1841.	Gould Coll.
l, m, n. Ad. sk.	Altai Mountains, May 1841.	Moscow Museum.
o, p. ♂ ♀ ad. sk.	Tirpbul, W. Afghanistan, April 13, 1885.	Dr. Aitchison [C.].
q. ♂ ad. sk.	Kojuk, Afghanistan, April 27, 1881.	Col. Swinhoe [P.].
r. ♂ ad. sk.	Killa Abdula, April 30, 1881.	Col. Swinhoe [P.].
s. ♂ ad. sk.	Chaman, April 27, 1881.	Col. Swinhoe [P.].
t. Juv. sk.	Cabul (<i>Griffith</i>).	India Museum.
u. Ad. sk.	Olipore (<i>Griffith</i>).	India Museum.
v, w. ♂ ♀ ad. sk.	Kandahar, April 24, July 18, 1879 (<i>Sir O. St. John</i>).	Hume Coll.
x, y. Ad. sk.	Nal, Khelat, April 23, 1877 (<i>O. T. Duke</i>).	Hume Coll.
z. ♂ juv. sk.	Peshawar.	Hume Coll.

m'-l'. ♂ ad. sk.	Sambhur, April, June, Oct., Nov., Dec. (<i>R. M. Adam</i>).	Hume Coll.
u'. Ad. sk.	Kutch, Jan. 1872.	Hume Coll.
v'. ♀ ad. sk.	Jodhpur (<i>R. M. Adam</i>).	Hume Coll.
w'. ♀ ad. sk.	Ajmere, Feb. 23, 1878 (<i>A. O. H.</i>).	Hume Coll.
x', y'. ♂ ad. sk.	Sultanpur, Gurgaon Dist., Jan. 6, 1879 (<i>W. N. Chill</i>).	Hume Coll.
z', a, b. ♂ ♀ ad. sk.	Delhi, Feb., March 1876 (<i>C. T. Bingham</i>).	Hume Coll.
γ-θ. ♂ ad. sk.	Gurgaon, March 1881 (<i>W. N. Chill</i>).	Hume Coll.
ι-ο. ♂ ad.; π. ♀ ad. sk.	Gurgaon, April (<i>W. N. Chill</i>).	Hume Coll.
ρ, σ. ♂ ♀ ad. sk.	Sultanpur, Gurgaon, July 1879 (<i>W. N. Chill</i>).	Hume Coll.
τ, υ, φ. ♂ ad.; χ. ♀ ad. sk.	Gurgaon Dist., August (<i>W. N. Chill</i>).	Hume Coll.
ψ, ω. ♂ ad. sk.	Sultanpur, Gurgaon, Dec. 1878 (<i>W. N. Chill</i>).	Hume Coll.
α'-δ'. ♂ ♀ ad. et juv. sk.	Umbala, Oct., Nov. 1866 (<i>R. C. Beavan</i>).	Tweeddale Coll.
ε'. Ad. sk.	Gangaotri, Jan. 1871.	Hume Coll.
ζ-ο'. Ad. et juv. sk.	Etawah, March, April, Nov.	Hume Coll.
π', ρ'. Ad. sk.	Oudh, Jan., Dec.	Hume Coll.
σ'. Juv. sk.	Nepal.	Hodgson Coll.
τ'. Ad. sk.	Darjeeling (<i>Pearson</i>).	India Museum.
υ'. Ad. sk.	Behar.	Hodgson Coll.
φ', χ'. ♂ ad.; ψ'. ♀ ad. sk.	Raipur.	Hume Coll.
ω'. ♂ ad. sk.	Raipur, Feb. 9, 1873.	Hume Coll.
α''-δ''. Ad.; ε'', ζ''. Imm. sk.	Kamptee.	Dr. B. Hinde [P.].
η''. ♂ ad. sk.	Seoni.	Hume Coll.
θ''. Ad. sk.	Saugor (<i>W. T. Hooper</i>).	India Museum.
ι''. ♂ ad.; κ'', λ''. ♂ ♀ imm. sk.	Mhow, October 1881.	Col. Swinhoe [P.].
μ''-ξ''. Ad. sk.	Khandeish.	Tweeddale Coll.
ο''-τ''. ♂ ♀ ad. et juv. sk.	Khandeish, Feb., March, April 1881 (<i>J. David- son</i>).	Hume Coll.
υ''. Ad. sk.	Berar, Feb. 1870 (<i>W. T. Blanford</i>).	Hume Coll.
φ''. Imm. sk.	Nursipatam, Rajamundry.	Hume Coll.
χ''. ♂ ad. sk.	Ooran, Bombay, Jan. 30, 1875.	Hume Coll.
ψ'. Ad. sk.	Ahmednuggur.	Hume Coll.
ω''-d. ♂ ♀ ad. et juv. sk.	Ahmednuggur, March, Oct., Nov. (<i>S. B. Fair- bank</i>).	Tweeddale Coll.
e. ♂ ad. sk.	Wadale, March 1873 (<i>S. B. Fairbank</i>).	Tweeddale Coll.
f, g. ♂ ad.; h. ♀ imm. sk.	Wadale, Nov. 1876 (<i>S. B. Fairbank</i>).	Tweeddale Coll.

i, k. ♂ ad. sk.	Belgaum, Feb. 24, 1880 (A. E. Butler).	Hume Coll.
l, m. Ad. sk.	Deccan (Sykes).	India Museum.
n. ♀ juv. sk.	Madras.	India Museum.
o. Ad. sk.	Madras.	Rev. H. H. Baber [P.].
p. Juv. sk.	Madras (Dr. Jordan).	Gould Coll.

7. STURNIA.

Sturnia, Less. *Compl. Buff.* ix. Ois. p. 53 (1837) Type. *S. sinensis*.

Range. Eastern Siberia, Japan, throughout China to the Burmese provinces and Malacca, the Philippines, Borneo, and the Moluccas.

Key to the Species.

- a. No band of white or greyish white at end of tail-feathers.
- a'. Back glossy violet; wings externally glossy green.
- a". Scapulars white or buffy white; outer tail-feathers externally ashy white; no red on face or throat; a purple patch on the occiput; under surface white, with a slight ashy shade on the breast and sides of body. *sturnina* ptil. æstiv., [p. 72.]
- b". Scapulars like the back; no light pattern on outer feather; sides of face and sides of neck vinous chestnut; a similar patch on the occiput; breast and sides of body dark slaty grey. *violacea*, p. 70.
- b'. Back ashy grey or brown; wings externally brown, with scarcely any gloss; median wing-coverts tipped with white.
- c'. No ruddy tinge about the face; a broad pale edging to outer tail-feather. *sturnina* ♀ ad. et juv., [p. 72.]
- d'. A slight ruddy tinge on the sides of the face; outer tail-feathers with only a slight pale margin. *violacea* ♀ et juv., [p. 71.]
- b. Tail-feathers broadly tipped with white or ashy white.
- c. Upper wing-coverts and scapulars white. *sinensis* ad. p. 69.

- Sturnia cana*, *Blyth, J. A. S. Beng.* xiii. p. 365 (1844); *id. Cat. B. Mus. As. Soc.* p. 110 (1849).
Sturnia elegans, *Blyth, J. A. S. Beng.* xiii. p. 364 (1844); *Gould, P. Z. S.* 1859, p. 151.
Pastor sinensis, *Gray, Gen. B.* ii. p. 334 (1847).
Heterornis elegans, *Bp. Consp.* i. p. 419 (1850).
Temenuchus turdiformis, *Swinh. Ibis*, 1860, p. 60, 1861, p. 44.
Heterornis sinensis, *Swinh. P. Z. S.* 1863, p. 302, 1865, p. 358, 1868, p. 128, 1870, p. 80.
Temenuchus sinensis, *Swinh. Ibis*, 1866, p. 394, 1870, p. 352; *id. P. Z. S.* 1871, p. 384; *Gray, Hand-l. B.* ii. p. 21, no. 6299 (1870); *David & Oust. Ois. Chine*, p. 363 (1878).
Temenuchus elegans, *Gray, Hand-l. B.* ii. p. 21, no. 6303 (1870); *Tiraud, Bull. Soc. Agric. Coch. Chine*, 1879, p. 135.

Adult male. General colour above ashy grey; scapulars white, tinged with creamy buff; lower back inclining to isabelline grey; rump and upper tail-coverts creamy buff, inclining to ochraceous; wing-coverts white, the greater coverts creamy buff; bastard-wing, primary-coverts, and quills velvety black, glossed externally with steel-green or purplish; the inner secondaries entirely glossy green; tail-feathers black with a steel-green gloss, and tipped with fawn-buff, increasing in extent towards the outermost; crown of head creamy buff, a little greyer on the nape and hind neck; lores deep creamy buff as also the fore part of the cheeks and chin; the throat, sides of face, and ear-coverts rather paler and more isabelline; lower throat, sides of neck, fore neck, and breast pale delicate ashy grey, the throat with a few paler and more lanceolate feathers; abdomen ashy white; sides of body and flanks rich tawny buff, paler on the latter; thighs and under tail-coverts creamy buff; under wing-coverts and axillaries pale salmon-colour, white at the base; quills below dusky blackish, somewhat more ashy along the inner edge: "bill blue, the mouth darker blue; legs plumbeous; claws horn-colour; iris white" (*E. W. Oates*). Total length 6·7 inches, culmen 0·7, wing 4·1, tail 2·3, tarsus 1.

Abbé David gives the colour of the iris as *black*, the bill blue with the tip yellow, and the feet reddish grey.

Hab. China, Formosa, and Hainan, wintering in South China and extending to Siam, Cochin China, Pegu, and even to Malacca.

<i>a, b.</i> Ad. sk.	Fokien, China.	Gould Coll.
<i>c, d.</i> ♂ ad. sk.	Whampoa, April 17, 1860 (<i>R. Swinhoe</i>).	Seebohm Coll.
<i>e-x.</i> Ad. sk.	Amoy, April, May (<i>R. S.</i>).	
<i>y, z.</i> ♂ ad.; <i>a'</i> ♀	Amoy, June 1872 (<i>Capt. Conrad</i>).	R. Bowdler Sharpe, Esq. [P.].
juv. sk.		
<i>b'</i> Ad. sk.	Amoy, June 1866 (<i>R. Swinhoe</i>).	Seebohm Coll.
<i>c'</i> ♂ ad.; <i>d'</i> Imm. sk.	Amoy, June 29, 1866.	Consul Swinhoe [O.]
<i>e'</i> Ad. sk.	Amoy, October 1873.	Professor
<i>f'</i> Ad. sk.	Amoy, Dec. 22, 1857 (<i>R. Swinhoe</i>).	Seebohm
<i>g'</i> Ad. sk.	Formosa, March 1866 (<i>R. S.</i>).	See

<i>N.</i> Ad. sk.	S.W. Formosa (<i>R. S.</i>).	Seeböhm Coll.
<i>♀</i> . Ad. sk.	Takow, Formosa, Nov. 1865 (<i>R. S.</i>).	Seeböhm Coll.
<i>N.</i> Juv. sk.	Ape's Hill, Formosa, Nov. 1861 (<i>R. S.</i>).	Hume Coll.
<i>I.</i> Ad. sk.	Hainan, Feb. 1868 (<i>R. S.</i>).	Seeböhm Coll.
<i>m', n'</i> . Ad. sk.	Hainan, March 1868 (<i>R. S.</i>).	Seeböhm Coll.
<i>o', p'</i> . Juv. sk.	Cochin China.	M. E. Pierre [<i>O.</i>].
<i>q'</i> . ♂ ad. sk.	Lower Pegu, Jan. 8, 1870.	Oates Coll.
<i>r'</i> . Ad. sk.	Singapore Island, Nov. 13, 1879 (<i>W. Davison</i>).	Hume Coll.

2. *Sturnia violacea*.

- Le Grand Traquet des Philippines, *Brisson, Orn.* iii. p. 446, pl. 22. fig. 3 (1760); *Daubenton, Pl. Enl.* iii. pl. 185. fig. 2; *Month. Hist. Nat. Ois.* v. p. 230 (1778).
Motacilla violacea, *Bodd. Tabl. Pl. Enl.* p. 11 (1783).
Pastor ruficollis, *Wagler, Syst. Av.*, *Pastor*, sp. 10 (1827); *Gray, Gen. B.* ii. p. 334 (1847).
Lamprotornis pyrrhogenys, *Temm. & Schl. Faun. Jap.*, *Avcs.* p. 86 (1850).
Lamprotornis pyrrhopogon, *id.* *t. c.* pl. 46 (1850).
Heterornis pyrrhogenys, *Bp. Consp.* i. p. 418 (1850, *ex Müller, MSS.*); *Swinh. P. Z. S.* 1863, p. 302.
Heterornis ruficollis, *Bp. Consp.* i. p. 418 (1850).
Sturnia pyrrhopogon, *Gray, P. Z. S.* 1860, p. 355.
Calornis albifrons, *Blyth (teste Swinhoe), P. Z. S.* 1863, p. 302, note.
Temenuchus pyrrhogenys, *Gray, Hand-l. B.* ii. p. 21, no. 6301 (1870).
Temenuchus ruficollis, *Gray, t. c.* p. 21, no. 6302 (1870).
Acridotheres pyrrhogenys, *Giebel, Thes. Orn.* i. p. 268 (1872).
Sturnia pyrrhogenys, *Wald. Trans. Z. S.* viii. p. 78 (1872); *Swinh. Ibis*, 1874, p. 150; *Blakist. & Pryer, Ibis*, 1878, p. 233; *Meyer, Ibis*, 1870, p. 134; *Blakist. Amended List B. Japan*, p. 14 (1884).
Sturnia dominicana, *Salvad. Ucc. Born.* p. 260 (1874); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlv. p. 235 (1887).
Sturnia daurica (*nec Pull.*), *Sharpe, Ibis*, 1870, p. 262.
Sturnia violacea, *Walden, Trans. Z. S.* ix. p. 203 (1877); *Ramsay, Ibis*, 1886, p. 162; *Blasius, in Madarasz, Zeitschr.* 1880, p. 120.

Adult male. General colour above glossy purple, the scapulars like the back; lower back and rump mixed with creamy buff and a

creamy white along the inner edge. Total length 6·6 inches, culmen 0·75, wing 4·3, tail 1·9, tarsus 1.

Adult female. Dark brown, the head like the back or slightly lighter brown; wings dark brown, with broad white tips to the median coverts; primaries narrowly fringed with reddish brown, the outer secondaries white towards the base of the outer web; rump deep ochreous buff; tail-feathers black, washed with glossy green, the outer feather narrowly edged with reddish brown; forehead, lores, and eyelid whitish; sides of face, fore neck, and chest dull ashy brown, the throat whiter and having a reddish tinge on the chin and fore part of cheeks; breast and abdomen white; under tail-coverts pale tawny; axillaries and under wing-coverts white. Total length 6 inches, culmen 0·65, wing 4, tail 1·85, tarsus 0·9.

Hab. Japan, migrating in winter to the Philippine Islands, Borneo, Celebes, and the Moluccas.

<i>a, b.</i> ♂ ad. sk.	Japan.	C. Maries [C.].
<i>c.</i> ♂ ad. sk.	Japan (<i>H. Pryer</i>).	R. B. Sharpe, Esq. [P.].
<i>d.</i> ♂ juv. sk.	Japan.	Purchased.
<i>e, f.</i> ♂ ♀ ad. sk.	Japan, May 31, 1871.	Tweeddale Coll.
<i>g, h.</i> ♂ ad. sk.	Hakodadi, May 1865 (<i>H. Whitely</i>).	Tweeddale Coll.
<i>i.</i> ♀ ad. sk.	Hakodadi, April 4, 1865 (<i>H. Whitely</i>).	Tweeddale Coll.
<i>k.</i> ♂ ad.; <i>l, m.</i> ♀ ad. sk.	Nagasaki, April 1883.	F. Ringer, Esq. [P.].
<i>n, o.</i> ♂ ♀ ad. sk.	Philippine Islands.	
<i>p.</i> ♂ ad. sk.	Dumalon, Mindanao.	Professor Steere [C.].
<i>q.</i> ♂ ad.; <i>r, s.</i> ♀ ad. sk.	Celebes.	Salvin-Godman Coll.
<i>t.</i> ♂ ad. sk.	Batchian.	Wallace Coll.

3. *Sturnia sturnina*.

Gracula sturnina, *Pall. Reis. Russ. Reichs.* iii. p. 695 (1776); *Gm. Syst. Nat.* i. p. 399 (1788); *Wald. Trans. Z. S.* ix. p. 204 (1877).

Sturnus dauricus, *Pall. Acta Holm.* 1778, p. 197, Taf. vii.; *Gm. Syst. Nat.* i. p. 806 (1788); *Pall. Zoogr. Rosso-Asiat.* i. p. 422 (1811); *Swinh. P. Z. S.* 1862, p. 310.

Merle Dominiquain des Philippines, *Daubent. Pl. Enl.* iv. pl. 627. fig. 2; *Montb. Hist. Nat. Ois.* iii. p. 396 (1775).

Dominican Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 58 (1783).

Turdus dominicanus, *Bodd. Tabl. Pl. Enl.* p. 38 (1783); *Gm. Syst. Nat.* i. p. 836 (1788).

Turdus striga, *Raffl. Trans. Linn. Soc.* xiii. p. 311 (1820).

Pastor sturninus, *Wagler, Syst. Av.*, Pastor, sp. 20 (1827); *Schrenck, Reis. Amurl.* p. 329, pl. xi. fig. 1 (1850); *Radde, Reis. Sibir., Vög.* p. 217 (1863).

Pastor malayensis, *Eyton, P. Z. S.* 1839, p. 103.

Acridotheres dauricus, *Strickl. Ann. & Mag. Nat. Hist.* xii. p. 221 (1843).

Sturnia malayensis, *Blyth, J. A. S. Beng.* xv. p. 35 (1846).

Pastor dominicanus, *Strickl. J. A. S. Beng.* xvi. p. 470 (1847).

Pastor dauricus, *Gray, Gen. B.* ii. p. 334 (1847).

- Sturnia daurica*, *Blyth, Cat. B. Mus. As. Soc.* p. 111 (1849); *Cab. Mus. Hem. Th.* i. p. 204 (1850); *Salvad. Ucc. Born.* p. 270 (1874); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 200 (1885), xlv. p. 395 (1886).
- Heterornis dauricus*, *Bp. Consp.* i. p. 418 (1850); *Swinh. P. Z. S.* 1863, p. 302; *Dybowsky, J. f. O.* 1872, p. 454; *Tucz. J. f. O.* 1874, p. 334, 1875, p. 252, 1876, p. 198; *id. Bull. Soc. Zool. France*, i. p. 174 (1876), x. p. 472 (1885); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xli. p. 307 (1882).
- Calornis dauricus*, *Blyth, Cat. B. Mus. As. Soc., App.* p. 20 (1852); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 544 (1856); *Moore, P. Z. S.* 1859, p. 445; *Blyth, J. A. S. Beng.* xxxi. p. 342, note (1862); *Jerd. B. Ind.* ii. p. 340 (1863); *Blyth & Wald. B. Burm.* p. 91 (1875).
- Sturnus pyrrhogenys* (*nec T. & S.*), *Swinh. Ibis*, 1861, p. 338.
- Temenichus dauricus*, *Gray, Hand-l. B.* ii. p. 21, no 6300 (1869); *Swinh. P. Z. S.* 1871, p. 384; *Hume, Str. F.* 1874, pp. 249, 480; *Prjer in Rowley's Orn. Misc.* ii. p. 286 (1877); *David & Oust. Ois. Chine*, p. 362 (1887).
- Sturnia sturnina*, *Hume & Davison, Str. F.* vi. p. 393 (1878); *Hume, Str. F.* 1879, p. 106; *Bingham, Str. F.* ix. p. 193; *Oates, B. Brit. Burm.* i. p. 383 (1883).

Adult male. General colour above glossy purplish violet; scapulars white with black bases; lower back like the mantle; rump sandy buff; upper tail-coverts glossy green with purple reflexions; lesser wing-coverts black; median coverts white with black bases; greater coverts glossy green, white at the base and having a mesial streak of sandy buff at the ends, broader on the inner ones; bastard wing black, the inner feathers white; primary-coverts and quills black, externally glossy green, the primaries broadly edged with drab-brown, decreasing towards the base of the inner feathers, the secondaries with a patch of drab-brown near the base of the outer web, the innermost entirely glossy green, with a mesial streak of sandy buff like the greater coverts; centre tail-feathers glossy green, the remainder black, externally glossy green, the outermost brown along the outer web; crown of head, nape, and hind neck dark ashy grey, lighter on the sides of the neck; on the occiput a patch of purplish violet; lores and a line at base of nostrils, as well as the eyelid, white; sides of face, ear-coverts, cheeks, and entire under surface of body greyish white; the breast and abdomen, thighs and under tail-coverts purer white; under wing-coverts and axillaries white; quills below dusky, ashy whitish along the inner edge. Total length 6·5 inches, culmen 0·75, wing 4·2, tail 2, tarsus 1.

Adult males in winter have the white of the wing-coverts, scapulars, and rump strongly washed with ochreous buff.

Adult female. Similar to the female of *S. violacea*, but is easily distinguished by the scapulars being white at the ends. It is brown instead of purple on the back like the male, rather more ashy on the head and neck, with a dusky patch on the occiput: "bill dark horny, the lower mandible at base whitish to tips of genys; feet greenish horny; iris brown" (*W. Davison*). Total length 6·5 inches, culmen 0·75, wing 4·15, tail 2, tarsus 1.

Hab. Eastern Siberia and Northern China, in winter to the Burmese provinces, the Nicobars, and the Malayan Peninsula to Java.

<i>a.</i> Ad. sk.	Tientsin (<i>Fleming</i>).	Seebohm Coll.
<i>b, c.</i> ♂ ♀ ad. sk.	Chefoo, May 1873 (<i>R. Swinhoe</i>).	Seebohm Coll.
<i>d.</i> Ad. sk.	Rangoon, Burniah.	Hume Coll.
<i>e, f.</i> ♀ ad. sk.	Camorta, Nicobars, Feb. 12, 1873 (<i>W. Davison</i>).	Hume Coll.
<i>g.</i> ♀ ad. sk.	Car Nicobar, March 20, 1873 (<i>W. Davison</i>).	Hume Coll.
<i>h.</i> ♂ ad. sk.	Moulmein, Tenasserim, March 3, 1874 (<i>W. Davison</i>).	Hume Coll.
<i>i, k.</i> ♂; <i>l.</i> ♀ ad. sk.	Amherst, March 22, 1874 (<i>W. Davison</i>).	Hume Coll.
<i>m, n.</i> ♂ ad.; <i>o, p.</i> ♀ ad. sk.	Tavoy, March 19, 1878 (<i>W. Davison</i>).	Hume Coll.
<i>q-t.</i> ♂ ad.; <i>u-z.</i> ♀ ad. sk.	Tavoy, April 1878 (<i>W. Davison</i>).	Hume Coll.
<i>a'.</i> ♂ ad. sk.	Mergui, Dec. 18, 1874 (<i>W. Davison</i>).	Hume Coll.
<i>b'.</i> Ad. sk.	Tenasserim, Feb. 1879.	Hume Coll.
<i>c'-e'.</i> ♂ ad.; <i>f', g'.</i> ♂ imm.; <i>h'.</i> Juv. sk.	Penang (<i>Cuntor</i>).	India Museum.
<i>i', k'.</i> ♀ ad. sk.	Salang, March 1879 (<i>J. Darling</i>).	Hume Coll.
<i>l'.</i> Imm. sk.	Malacca.	Pinwill Coll.
<i>m', n', o'.</i> [♂ ♀] ad. sk.	Malacca (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>p'.</i> [♂] ad. sk.	Malacca (<i>Charlton</i>).	Eyton Coll.
<i>q'.</i> [♂] ad. sk.	Malacca, March 9, 1879 (<i>W. Davison</i>).	(Type of <i>P. malayensis</i>) Hume Coll.
<i>r', s'.</i> ♂ ad. sk.	Malacca (<i>Dr. Maingay</i>).	Tweeddale Coll.
<i>t'.</i> ♂ ad.; <i>u'.</i> ♂ imm. sk.	Malacca.	Gould Coll.
<i>v'.</i> ♂ ad.; <i>w', x'.</i> ♀ ad. sk.	Singapore Island, Nov. 2, 1879 (<i>W. Davison</i>).	Hume Coll.
<i>y'.</i> ♂ ad.; <i>z'.</i> ♂ imm. sk.	Sumatra.	Wallace Coll.
<i>a'', b''.</i> ♂ ♀ ad. sk.	Java (<i>Diard</i>).	Salvin-Godman Coll.
<i>c''.</i> ♂ ad. sk.	W. Java.	Wallace Coll.

8. TEMENUCHUS.

Heterornis, pt., <i>Gray, Gen. B.</i> ii. p. 335	Type. ? <i>T. pagodarum</i> .
Temenuchus, <i>Cab. Mus. Hein.</i> Th. i. p. 204 (1850)	<i>T. pagodarum</i> .

Range. Afghanistan and the whole of the Indian Peninsula to Ceylon.

1. Temenuchus pagodarum.

Le Martin Brême, *Sonn. Voy. Ind. Orient.* ii. p. 189 (1782); *Levaill. Ois. d'Afr.* ii. pl. 95. fig. 1 (1800).
Pagoda Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 30 (1783).

- Turdus pagodarum*, *Gm. Syst. Nat.* i. p. 816 (1788).
 ? *Sylvia nigricollis*, *Lath. Ind. Orn.* ii. p. 553 (1790).
Turdus melanocephalus, *Vahl, Mem. Soc. Copenh.* iii. pt. 2, Taf. 8 (1792).
Sturnus subroseus, *Shaw & Nodder, Nat. Misc.* xix. pl. 805 (1807).
Acridotheres pagodarum, *Bonn. et Vieill. Enc. Méth.* ii. p. 639 (1823); *Tytler, Ibis*, 1868, p. 201.
Pastor pagodarum, *Wagler, Syst. Av.*, *Pastor*, sp. 8 (1827); *Sykes, P. Z. S.* 1832, p. 95; *Jerd. Madr. Journ.* xi. p. 21 (1840); *Blyth, Ann. & Mag. Nat. Hist.* xii. p. 97 (1843); *Gray, Cat. Mamm. etc. Nepal pres.* *Hodgs.* p. 103 (1846).
Maina sylvestris, *Hodgs. J. A. S. Beng.* v. p. 771 (1836).
Pastor nigricaps, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 271. fig. 1 (no 270); *id. in Gray's Zool. Misc.* p. 84 (1844).
Heterornis pagodarum, *Gray, Gen. B.* ii. p. 335 (1847); *Bp. Consp.* i. p. 419 (1850); *Layard, Ann. & Mag. N. H.* (2) xiii. p. 217 (1854).
Sturnia pagodarum, *Blyth, J. A. S. Beng.* xlii. p. 363 (1844), xv. p. 285 (1846), xvi. p. 470 (1847); *id. Cat. B. Mus. As. Soc.* p. 110 (1849); *Adams, P. Z. S.* 1850, p. 173; *Irby, Ibis*, 1861, p. 231; *Blyth, B. Burm.* p. 90 (1875); *Davidson & Wenden, Str. F.* vii. p. 85 (1878); *Bull, t. c.* p. 221; *Hume, t. c.* p. 221; *Wardlaw Ramsay, Ibis*, 1880, p. 63; *Vidal, Str. F.* 1880, p. 70; *Reid, Str. F.* 1881, p. 53; *Scully, Ibis*, 1881, p. 573; *Davidson, Str. F.* 1882, p. 312; *Davison, Str. F.* 1883, p. 401; *Swinh. & Burnes, Ibis*, 1885, p. 128; *Taylor, Str. F.* 1887, p. 462.
Temenuchus pagodarum, *Cab. Mus. Hein. Th.* i. p. 204 (1850); *Huraf. & Moore, Cat. B. Mus. E. I.* (2) ii. p. 528 (1856); *Jerd. B. Ind.* ii. p. 329 (1863); *Beavan, Ibis*, 1868, p. 171; *Hume, Ibis*, 1869, p. 17; *Brooks, t. c.* p. 59; *Walden, t. c.* p. 210; *Gray, Hand-l. B.* ii. p. 20, no. 6292 (1870); *Holdsw. P. Z. S.* 1872, p. 462; *Hayes Lloyd, Ibis*, 1873, p. 413; *Hume, Nests & Eggs Ind. B.* p. 432 (1873); *Bull, Str. F.* 1874, p. 419; *Legge, Ibis*, 1874, p. 23, 1875, pp. 274, 308; *Butler, Str. F.* 1875, p. 594; *Fairb. Str. F.* 1876, p. 260; *Hume, t. c.* p. 459, 1877, p. 407; *Biddulph, Ibis*, 1881, p. 79, 1882, p. 281; *Marshall, Ibis*, 1884, p. 419; *Murray, Vertebr. Faun. Sind*, p. 170 (1884).

Adult male. General colour above delicate lavender-grey with a slight wash of rusty; wing-coverts like the back; bastard-wing, primary-coverts, and quills black, the secondaries externally lavender-grey with hoary margins, the inner secondaries entirely grey; centre tail-feathers dark grey with whitish tips, the remainder black, broadly tipped with white, increasing in extent towards the outer feathers; lores and eyelid black; crown of head and a long crest greenish black; feathers of hind neck also very long, of a pale cinnamon colour like the sides of the neck, sides of face, ear-coverts, cheeks, and under surface of body, the feathers with a more or less marked central line of white; feathers of lower breast with hoary edges; lower abdomen, thighs, under tail-coverts, under wing-coverts, and axillaries white; quills below blackish: "bill bluish slate-colour at base, the tip pale yellow, greenish at the junction of the two colours; legs and feet pale yellow; inside of mouth blackish slate; iris whitish" (*E. A. Butler*); "gape and base of bill cobalt-blue; ring round bill at nostrils green; anterior half of bill Indian yellow; feet and claws greenish yellow; iris bluish white"

(*J. Scully*). Total length 8·2 inches, culmen 0·8, wing 4·1, tail 2·8, tarsus 1·15.

Adult female. Similar to the male, but with not so long a crest. Total length 7·5 inches, culmen 0·75, wing 4·05, tail 2·6, tarsus 1·05.

When the plumage gets worn, the mesial streaks on the under surface are much plainer and contrast with the rufous plumage. The length of the crest is enormous in some birds, and Colonel Legge suggests that it may be a seasonal development; but I fancy that in the birds from North-western India the crests are always more strongly indicated than in those from the South and East.

Young. More ashy brown than the adults, the head being dusky blackish, with no crest; the rufous portions of the plumage paler than the adults, and showing scarcely any indication of white shaft-streaks.

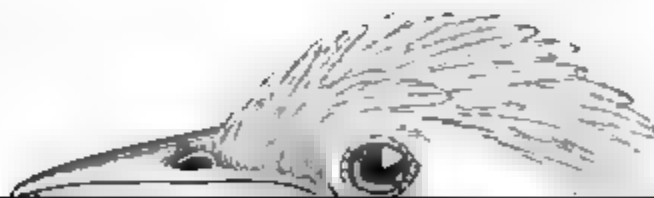
Hab. The same as that of the genus.

<i>a-c.</i> Ad.; <i>d, e.</i> Juv. sk.	Cabul (<i>Dr. Griffith</i>).	India Museum.
<i>f.</i> ♂ ad. sk.	Karachi, Sindh, Nov. 13, 1877 (<i>E. A. Butler</i>).	Hume Coll.
<i>g-o.</i> ♂ ♀ ad. et juv. sk.	Sambhur, April, June, July, Aug. (<i>R. M. Adam</i>).	Hume Coll.
<i>p.</i> Ad. sk.	Mt. Aboo (<i>Dr. Newman</i>).	Hume Coll.
<i>q.</i> ♀ ad. sk.	Mt. Aboo, May 1868 (<i>Dr. G. King</i>).	Hume Coll.
<i>r.</i> ♀ ad. sk.	Muradabad, June 2.	Hume Coll.
<i>s.</i> ♀ ad. sk.	Boonji, June 1876.	Col. Biddulph [C.].
<i>t.</i> ♀ ad. sk.	Gilgit, June 1876 (<i>J. Biddulph</i>).	Tweeddale Coll.
<i>u.</i> Ad. sk.	Simla, March 1873 (<i>F. Stoliczka</i>).	Hume Coll.
<i>v.</i> Ad. sk.	Umbala.	Hume Coll.
<i>w.</i> ♂ ad.; <i>x.</i> ♂ juv. sk.	Umbala, Nov. 1866 (<i>R. C. Beavan</i>).	Tweeddale Coll.
<i>y.</i> Ad. sk.	Kumaon (<i>Strachey</i>).	India Museum.
<i>z-a'.</i> Ad. sk.	N.W. India.	Pinwill Coll.
<i>b', c'.</i> Ad. sk.	Etawah.	Hume Coll.
<i>d'.</i> Ad. sk.	Mogul Serai, Oudh, Dec. 1873 (<i>W. E. Brooks</i>).	Hume Coll.
<i>e'.</i> Ad. sk.	Oudh.	Tweeddale Coll.
<i>f'-h'.</i> Ad. sk.	Gondah (<i>Capt. Pinwill</i>).	Tweeddale Coll.
<i>i'.</i> ♂ ad. sk.	Eastern Jumna Canal, July 2, 1873 (<i>W. Davison</i>).	Hume Coll.
<i>k'.</i> Ad. sk.	Behar.	Hodgson Coll.
<i>l'.</i> Juv. sk.	Calcutta.	India Museum.
<i>m'.</i> Ad. sk.	Maunbhoom, March 1865 (<i>R. C. Beavan</i>).	Tweeddale Coll.
<i>n', o'.</i> ♂ ad.; <i>p', q'.</i> ♂ juv. sk.	Raipur.	Hume Coll.
<i>r', s'.</i> Ad. sk.	Valley of Tapti River, Khandeish, May 1874.	Hume Coll.
<i>t', u'.</i> Ad. sk.	Khandeish.	Tweeddale Coll.
<i>v'-x'.</i> ♂ ad.; <i>y'.</i> ♀ ad. sk.	Khandeish, Dec. 1880 (<i>J. Davidson</i>).	Hume Coll.
<i>z'.</i> Ad. sk.	Khandeish, April 8, 1881 (<i>J. Davidson</i>).	Hume Coll.
<i>a'', b''.</i> Ad. sk.	Deccan (<i>Col. Sykes</i>).	India Museum.

o'. ♀ ad. sk.	Bilaspur, north of Ahmednugger, March 8, 1875 (<i>S. B. Fairbank</i>).	Tweeddale Coll.
d'. ♂ juv. sk.	Wadale, north of Ahmednugger, Sept. 30, 1876 (<i>S. B. Fairbank</i>).	Tweeddale Coll.
e'. ♂ ad. sk.	S. Konkan, Feb. 2, 1880 (<i>G. Vidal</i>).	Hume Coll.
f'', g'. ♂; h'. ♀ ad. sk.	Belgaum, Jan., March, June 1880 (<i>E. A. Butler</i>).	Hume Coll.
i'. ♂ ad. sk.	Base of Palani Hills, June 6, 1877 (<i>S. B. Fairbank</i>).	Hume Coll.
k'. Juv.; l'. Ad. sk.	Madras.	Gould Coll.
m'. Ad. sk.	Madras, April 1877 (<i>W. Davison</i>).	Hume Coll.
n'. Ad. sk.	Madras.	Hume Coll.
o'. ♂ ad. sk.	Bangalore, March 24, 1878 (<i>R. G. W. R.</i>).	Tweeddale Coll.
p'-t'. ♂ ♀ ad. sk.	Mysore, April, Aug. (<i>W. Davison</i>).	Hume Coll.
u'. ♂ ad. sk.	Seegore, Feb. 1881 (<i>W. Davison</i>).	Hume Coll.
v', w'. Ad. sk.	Seegore, Feb. 1881 (<i>W. Davison</i>).	Hume Coll.
x'. Imm. sk.	Coonoor Ghat, Oct. 5, 1878 (<i>R. G. W. R.</i>).	Tweeddale Coll.
y'. Ad. sk.	Kullar, Feb. 1, 1881 (<i>W. Davison</i>).	Hume Coll.
z'. Ad. sk.	Rameswaren Island, March 17, 1875 (<i>A. O. H.</i>).	Hume Coll.
a. ♀ juv. sk.	Colombo, Ceylon, Nov. 8, 1877 (<i>Hart</i>).	Hume Coll.
β. Ad. sk.	Ceylon, Nov. 20, 1866 (<i>S. Chapman</i>).	Tweeddale Coll.

9. GRACULIPICA.

Gracupica, *Lesson, Traité*, p. 401 (1831) Type.
G. nigricollis.



1. *Graculipica nigricollis*.

Gracula nigricollis, *Payk. Nova Acta Stockh.* xxviii. pl. 9 (1766).

Pastor temporalis, *Wagler, Syst. Av.*, *Pastor*, sp. 7 (1827); *Blyth, J. A. S. Beng.* xiii. p. 366, note (1844); *Gray, Gen. B.* ii. p. 334 (1847).

Pastor bicolor, *J. E. Gray, Zool. Misc.* p. 1 (1831).

Gracupica melanoleuca, *Less. Traité*, p. 401 (1831).

Sturnopastor melanoleucus, *Gray, Gen. B.* ii. p. 336 (1847).

Acridotheres nigricollis, *Gray, t. c.* p. 355 (1847); *id. Hand-l. B.* ii. p. 20, no. 6291 (1870); *Gould, P. Z. S.* 1859, p. 151.

Sturnopastor temporalis, *Blyth, Cat. B. Mus. As. Soc.* p. 109 (1849); *Bp. Consp.* i. p. 420 (1850).

Gracupica nigricollis, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 528 (1856); *Swinh. P. Z. S.* 1863, p. 303, 1871, p. 384; *David & Oust. Ois. Chine*, p. 364 (1877); *Tiraud, Bull. Soc. Agric. Coch. Chine*, 1879, p. 137; *Oates, B. Brit. Burm.* i. p. 377 (1883); *Salvad. Ann. Mus. Civic. Genov.* (2) iv. p. 602 (1887).

Sturnopastor nigricollis, *Blyth & Wald. B. Burm.* p. 90 (1875); *Anderson, Zool. Exped. Yunnan, Aves*, p. 595 (1878).

Adult. General colour above brown, with broad but indistinct ashy edges to the feathers; scapulars like the back; rump white, forming a broad band; upper tail-coverts brown, with lighter brown edges; lesser wing-coverts dark brown, edged with white; median and greater coverts brown, tipped with white; bastard-wing blackish brown, with white tips; primary-coverts white; quills dark brown, tipped with white, the secondaries much more broadly edged at the ends; centre tail-feathers dark brown, tipped with white at the end of the outer web, all the other feathers broadly banded with white at the tip; crown of head white; hind neck black, forming a broad band, succeeded by a narrower band of greyish white, formed of the tips to the feathers of the upper mantle; lores, sides of face, ear-coverts, cheeks, and throat white; sides of neck, lower throat, and fore neck black, the feathers of the latter washed with greyish white at the ends; chest and under surface of body white; thighs white, blackish brown externally; under tail-coverts white; under wing-coverts and axillaries black, with broad white tips; edge of wing white; quills below dark brown, a little lighter along the inner edge: "bill reddish brown; feet yellowish; bare space round the eye bright yellow" (*A. David*). Total length 11 inches, culmen 1.25, wing 6.2, tail 3.7, tarsus 1.6.

Adult female. Similar to the male in plumage. Total length 9.8 inches, culmen 1.3, wing 6.2, tail 3.5, tarsus 1.55.

A male collected by Dr. Anderson has the wing 6.4 inches.

Young. Browner than the adult, with no brown round the neck or across the fore neck; the head dull white; the sides of the face, throat, and chest pale dusky brown; remainder of the under surface and the wings and tail as in the adult. When quite young the head is brown also like the throat.

Hab. China to Cochin China, Burmah, and Tenasserim.

a. ♀ ad. k.

China (*Tuckett*).

Tweeddale Coll.

b. Ad. sk.	Amoy, Jan. 1867 (<i>R. Swinhoe</i>).	Seebohm Coll.
c. Juv. sk.	Amoy, May 1866 (<i>R. Swinhoe</i>).	Seebohm Coll.
d. Juv. sk.	Amoy, July 4, 1866 (<i>R. Swinhoe</i>).	Seebohm Coll.
e-m. Ad. et juv. sk.	Amoy, April, Nov., Dec. (<i>R. Swinhoe</i>).	
n, o. Ad. sk.	Fokien.	Gould Coll.
p. ♂ ad. sk.	Foochow.	Tweeddale Coll.
q. Juv. sk.	Foochow, Sept. 21, 1859.	Consul Swinhoe [C.]
r. Imm. sk.	Canton.	Tweeddale Coll.
s, t. Ad. sk.	Cochin China.	M. E. Pierre [P.]
u. Ad.; v. Juv. sk.	Siam (<i>Finlayson</i>).	India Museum.
w, x. Ad. sk.	Siam.	Hume Coll.
y. Ad. sk.	Siam.	Gould Coll.
z, a'. Ad. sk.	Bhamo, Upper Burma.	Oates Coll.
b'. ♀ ad. sk.	Right Bank of Tapeng River, Feb. 5, 1876.	Dr. J. Anderson [C.]
c'. ♂ ad. sk.	Muangla, Sanda Valley, May 2, 1868.	Dr. J. Anderson [C.]
d'-k. Ad. sk.	Tenasserim River, Dec. 1878 to Feb. 1879 (<i>Mandelli Coll.</i>).	Hume Coll.

2. *Graculipica melanoptera*.

Gracula melanoptera, *Daud. Traité*, ii. p. 286 (1800); *Vieill. N. Dict. d'Hist. Nat.* xix. p. 300 (1818).

Pastor tricolor, *Horaf. Trans. Linn. Soc.* xiii. p. 115 (1820); *Blyth, J. A. S. Beng.* xiii. p. 305 (1844); *Gray & Mitch. Gen. B.* ii. pl. 83 (1847).

Acridotheres melanopterus, *Bonn. et Vieill. Enc. Méth.* ii. p. 689 (1823).

Pastor melanopterus, *Wagler, Syst. Av.*, *Pastor*, sp. 11 (1827); *Horaf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 542 (1856).

Heterornis melanopterus, *Gray, Gen. B.* ii. p. 335 (1847).

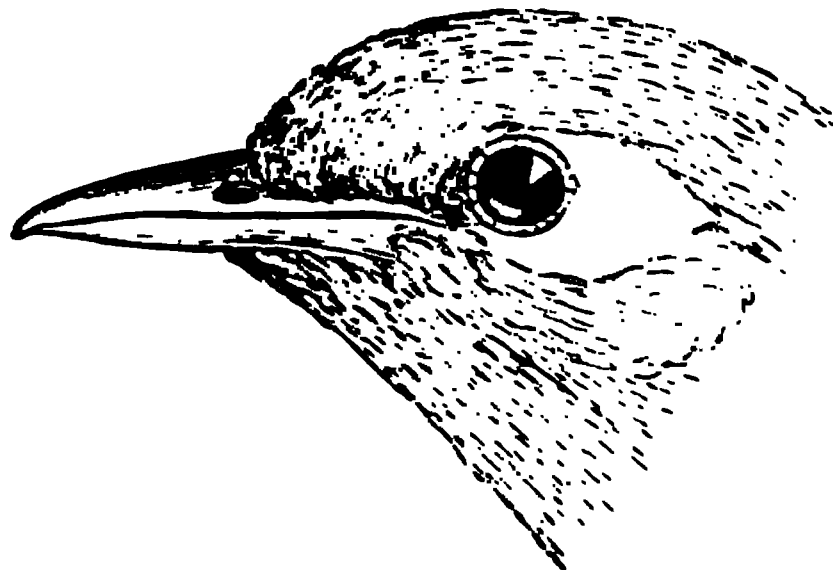
Sturnopastor melanoptera, *Bp. Consp.* i. p. 420 (1850); *Gray, Hand-l. B.* ii. p. 22, no. 6314 (1870); *Nichols. Ibis*, 1881, p. 152.

Adult male. Pure white above and below, with here and there a tinge of creamy buff, a little more distinct on the head and on the

c. ♂ ad. sk.	Java (<i>Horsfield</i>).	India Mus. (Type of <i>P. tricolor</i> .)
d. ♀ ad. sk.	E. Java.	Wallace Coll.
e, f. ♂ ♀ ad. sk.	Java.	Salvin-Godman Coll.
g. ♀ ad. sk.	Island of Madura, Nov. 1871 (<i>Dr. A. B. Meyer</i>).	Tweeddale Coll.

10. ACRIDOTHERES.

Acridotheres, *Vieill. Analyse*, p. 42 (1816)* Type.
Maina, pt., *Hodgs. J. A. S. Beng.* v. p. 771 (1836). *A. tristis*.



Head of *A. tristis*, to show bare patch round the eye.

Range. Afghanistan, the whole of India and Ceylon, the Burmese countries and South China; Java; Celebes.

Key to the Species.

- a. With a broad yellow patch of bare skin below and behind the eye [*Acridotheres*].
 - a'. With a black base to the lower mandible; base of quills white, forming a speculum.
 - a''. No black on the breast and abdomen *tristis*, p. 80.
 - b''. Centre of breast and abdomen black *melanosternus*, p. 83.
 - b'. With no black on the base of the lower mandible; base of quills rufous *ginginianus*, p. 84.
- b. With little or no bare space round the eye, certainly no yellow patch [*Ethiopsar*].
 - c'. No whitish collar on sides of neck.
 - c''. A black base to the lower mandible; under tail-coverts white.
 - a'''. Iris yellow *fuscus*, p. 83.
 - b'''. Iris blue *mahrattensis*, p. 80.
 - d''. No black base to the lower mandible (in *A. cinereus* a small black spot); under tail-coverts white.
 - e''. White tips to the centre tail-feathers; ashy grey above and below.

* A composite genus, founded on the "Martin" and the "Goulin" of Mont-beillard. The latter having been subsequently made the type of the genus *Sarcops*, the "Martin" (*A. tristis*) remains as the type of *Acridotheres*.

- a*⁴. Base of lower mandible entirely yellow; under surface of body iron-grey *jaeunivus*, p. 80.
*b*¹. Base of lower mandible with a black spot; under surface of body pale silvery grey *cinereus*, p. 91.
*d*¹¹. No white tips to centre tail-feathers; blackish above and below, greyer on the under surface *grandis*, p. 91.
*e*¹¹. Base of lower mandible reddish; under tail-coverts black, with narrow white tips *crisatellus*, p. 92.
*d*¹. With a whitish collar on each side of the neck; under tail-coverts black, tipped with white *albocinctus*, p. 94.

1. *Acridotheres tristis**.

Le Merle des Philippines, *Briss. Orn.* ii. p. 278 (1760); *Daubent. Pl. Enl.* iv. pl. 219.

Paradisea tristis, *Linn. Syst. Nat.* i. p. 167 (1766).

Le Martin, *Montb. Hist. Nat. Ois.* iii. p. 423 (1775).

Gracula tristis, *Lath. Ind. Orn.* i. p. 190 (1790); *Sunder. Ann. & Mag. Nat. Hist.* xviii. p. 303 (1846).

Gracula gryllivora, *Daud. Traité*, p. 285 (1800).

Acridotheres tristis, *Bonn. et Vieill. Enc. Méth.* ii. p. 688 (1823); *Blyth, J. A. S. Beng.* xiii. p. 361 (1844), xv. p. 314 (1846); *Gray, Gen. B.* ii. p. 335 (1847); *Tuckell, J. A. S. Beng.* xvii. p. 304 (1848); *Hutton, t. c.* pt. 2, p. 8 (1848). *Bp. Consp.* i. p. 419 (1850); *Cub. Mus. Hein. Th.* i. p. 205 (1850); *Blyth, Cat. B. Mus. As. Soc.* p. 108 (1849); *Tytler, Ann. & Mag. Nat. Hist.* (2) xiii. p. 308 (1851); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 532 (1856); *Adams, P. Z. S.* 1859, p. 173, *Ib.* 1861, p. 231; *Blyth, J. A. S. Beng.* xxxi. p. 343, note (1862); *E. Newt. Ibis*, 1863, pp. 273, 349; *Jard. B. Ind.* ii. p. 325 (1863); *Beavan, Ibis*, 1864, p. 376; *A. Newt. P. Z. S.* 1865, p. 836; *Beavan, Ibis*, 1866, p. 419, 1867, pp. 138, 329. *E. Newt. t. c.* p. 342; *Tytler, Ibis*, 1868, p. 301; *Brooks, Ibis*, 1869, p. 58; *Gray, Hand-l. B.* ii. p. 10, no. 6282 (1870); *Walden, Ibis*, 1873, p. 3; *Hayes Lloyd, t. c.* p. 414; *Hume, Nests & Eggs Ind. B.* p. 428 (1873); *Ball, Str. F.* 1873, p. 75; *Unwin, P. Z. S.* 1874, p. 211; *Hume, Str. F.* 1874, p. 246; *Ball, t. c.* p. 419; *Butler, t. c.* p. 494; *Brooks, Str. F.* 1875, p. 254; *Blyth & Wald. B. Burm.* p. 89 (1875); *Fairb. Str. F.* 1876, p. 260; *Hume, Str. F.* 1877, p. 38; *Oates, t. c.* p. 160; *Fairb. t. c.* p. 407; *Hume & Davison, Str. F.* vi. p. 348 (1878); *Anderson, Zool. Exped. Yunnan, Aves*, p. 593 (1878); *Davidson & Wenden, Str. F.* vii. p. 84 (1878); *Ball, t. c.* p. 221; *Cripps, t. c.* p. 290; *Hume, Str. F.* 1879, p. 106; *Scully, t. c.* p. 330; *Wardlaw Ramsay, Ibis*, 1880, p. 63; *Vidal, Str. F.* 1880, p. 70; *Bingham, t. c.* p. 192; *Reid, Str. F.* 1881, p. 52; *Simson, Ibis*, 1882, p. 86; *Finsch, t. c.* p. 394; *Davidson, Str. F.* 1882, p. 311; *Oates, B. Brit. Burm.* i. p. 379 (1883); *Davison, Str. F.* 1883, p. 400; *Marshall, Ibis*, 1884,

* Count Salvadori thinks that *Pastor pequanus*, Less. *Trade*, p. 404, is *A. tristis*. The description certainly lends probability to this surmise, but the diagnosis is not satisfactory. [*P. pequanus*, Less., in *Belang. Voy.* p. 258 (1834), *Bp. Consp.* i. p. 421 (1850); *Blyth, J. A. S. Beng.* xxxi. p. 348, note (1862).]

p. 419; *Murray, Vertebr. Faun. Sind*, p. 178 (1884); *Swinh. & Barnes, Ibis*, 1885, p. 128; *Taylor, Str. F.* 1887, p. 462; *Salrad. Ann. Mus. Civic. Genov.* (2) iv. p. 603 (1887); *Hume, Str. F.* xi. p. 262 (1888).

Pastor tristis, *Wagler, Syst. Av.*, *Pastor*, sp. 5 (1827); *Sykes, P. Z. S.* 1832, p. 95; *McClell. P. Z. S.* 1839, p. 163; *Jerd. Madr. Journ.* xi. p. 20 (1840); *Hodgs. in Gray's Zool. Misc.* p. 84 (1844); *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 104 (1846).

Maina tristoides, *Hodgs. J. A. S. Beng.* v. p. 771 (1836).

Pastor tristoides, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 272. figs. 1, 2 (no. 303).

Acridotheres fuscus (*nec Wagl.*), *Wardlaw Ramsay, Ibis*, 1879, p. 448 (*lapsu*).

Adult male. General colour above vinous brown with an ashy shade; scapulars and under tail-coverts like the back; lesser wing-coverts also like the back; median and greater coverts rather more bronzy olive-brown; bastard-wing black, some of the feathers externally white; primary-coverts pure white; quills black, white at the base, the secondaries blackish, externally bronzy brown, the inner ones entirely of this colour; centre tail-feathers blackish, glossed with green, slightly tipped with white; remainder black, externally greenish black, broadly tipped with white, increasing in extent towards the outermost; crown of head and nape, hind neck, lores, sides of face, ear-coverts, and cheeks greenish black; throat and chest ashy blackish, with a slight greenish gloss; abdomen and under tail-coverts white; breast, sides of body, flanks, and thighs vinous brown, shaded with ashy; under wing-coverts and axillaries white; quills below blackish, white at the base: "eyelids, bill, and skin about the eyes yellow; edges of the eyelids black; mouth bluish black; iris reddish brown, mottled with white; legs yellow; claws horn-colour" (*E. W. Oates*). Total length 9·5 inches, culmen 0·85, wing 5·9, tail 3·7, tarsus 1·5.

Adult female. Similar in colour to the male. Total length 9·5 inches, culmen 1, wing 5·5, tail 3·45, tarsus 1·4.

Hab. From Afghanistan over the whole of the Indian Peninsula, Burma, and Tenasserim. The South-Indian specimens are darker and approach *A. melanosternus*.

<i>a-f.</i> Ad. sk.	Afghanistan (<i>Griffith</i>).	India Museum.
<i>g.</i> Ad. sk.	Jellalabad (<i>Griffith</i>).	India Museum.
<i>h.</i> Ad. sk.	Pushut (<i>Griffith</i>).	India Museum.
<i>i.</i> Ad. sk.	Shikarpur, Scinde (<i>Griffith</i>).	India Museum.
<i>k.</i> ♂ ad. sk.	Mount Abu, May 21, 1868 (<i>G. King</i>).	Hume Coll.
<i>l-o.</i> ♂; <i>p.</i> ♀ ad. sk.	Sambhur, Feb., June (<i>R.</i> <i>M. Adam</i>).	Hume Coll.
<i>q.</i> ♀ ad. sk.	Sambhur, June 16, 1871 (<i>R.</i> <i>M. Adam</i>).	Tweeddale Coll.
<i>r-u.</i> ♂ ♀ ad. sk.	Sambhur, July, Dec. (<i>R.</i> <i>M. Adam</i>).	Hume Coll.
<i>v.</i> ♂ ad. sk.	Delhi, Feb. 26, 1876 (<i>C. T.</i> <i>Bingham</i>).	Hume Coll.
<i>w, x.</i> ♂ ♀ ad. sk.	Murdan, Feb. 1, 1871 (<i>E. A.</i> <i>Johnson</i>).	Hume Coll.

y. ♀ ad.; z. Ad. sk.	Simla, June, July (R. C. Beavan).	Tweeddale Coll.
α'. Ad. sk.	Top of Jacko, Simla, Nov. 15, 1872 (A. O. H.).	Hume Coll.
β'. Ad. sk.	Middle range, north of Masuri.	Hume Coll.
γ', δ'. Ad. sk.	Kumaon.	Hume Coll.
ε'. Ad. sk.	Kumaon (Strachey).	India Museum.
ζ'. Ad. sk.	Oude, Nov. 1873 (W. E. Brooks).	Hume Coll.
η'. ♂ ad. sk.	Behar.	Hodgson Coll.
θ', ι'. ♂ ♀ ad. sk.	Nepal Valley, Jan. and Feb. (J. Scully).	Hume Coll.
κ'. ♀ ad. sk.	Nepal Valley, Aug. 7, 1877.	Dr. J. Scully [P.].
ι'-n'. Ad.; o'. Juv. sk.	Nepal.	Hodgson Coll.
p', q'. Ad. sk.	Nepal (B. H. Hodgson).	India Museum.
r'. ♀ juv. var. sk.	Native Sikhim, July 1875 (L. Mandelli).	Hume Coll.
s', t'. Ad. sk.	Darjiling Terai, Feb., Dec. (L. Mandelli).	Hume Coll.
u'. Ad. sk.	Bhootan Dooars, Feb. 1874 (L. Mandelli).	Hume Coll.
v'. Ad. sk.	Bhootan (Pemberton).	India Museum.
w'. Ad. sk.	Assam (McClelland).	India Museum.
x'. ♂ ad. sk.	Assam, March 1876 (A. W. Chennell).	Tweeddale Coll.
y'. ♂; z', α'. ♀ ad. sk.	Kalleejung, Brahmaputra River, Dec. 4, 1877 (W. Davison).	Hume Coll.
β'', γ''. ♂ ♀ ad. sk.	Dhollah, Assam, April 19, 1877 (J. Cockburn).	Hume Coll.
δ''. ♂ ad. sk.	Dibrughur, May 8, 1880 (J. R. Cripps).	Hume Coll.
ε''. Ad. sk.	Cachar (J. Inglis).	Hume Coll.
ζ''. ♀ ad. sk.	Manipur, Feb. 21, 1881 (A. O. H.).	Hume Coll.
η''. ♂ ad. sk.	Booribazar, March 11, 1881 (A. O. H.).	Hume Coll.
θ''. Ad. sk.	Dacca.	Hume Coll.
ι''. Ad. sk.	Kamptee.	Dr. B. Hinde [P.].
κ''. Ad. sk.	Saugor (Hooper).	India Museum.
ι'. ♂ ad. sk.	Mhow, Dec. 6, 1881.	Col C. Swinhoe [P.].

η. ♀ ad. sk.	Nellacotta, Wynaad, March 31, 1881 (<i>W. Davison</i>).	Hume Coll.
θ. ♀ ad. sk.	Manantoddy, Wynaad, April 6, 1881 (<i>W. Davison</i>).	Hume Coll.
ι. ♂ ad. sk.	Kotagherry, Nilghiris, June 23, 1874 (<i>Miss Cockburn</i>).	Hume Coll.
κ. Ad. sk.	Madras (<i>Jerdon</i>).	Gould Coll.
λ. Ad. sk.	Madras.	Rev. H. H. Baber [C.].
μ, ν. Ad. sk.	Anjango, Travancore, Dec. 1872.	Hume Coll.
ξ. ♂ ad. sk.	Colachul, Feb. 28, 1875.	Hume Coll.
ο. Ad. sk.	Katha, Upper Burmah, Jan. 19, 1865.	Dr. J. Anderson [C.].
π. ♂ ad. sk.	Rangoon, June 22, 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
ρ. ♀ ad. sk.	Boulay, Thayetmyo District, May 23, 1873 (<i>E. W. Oates</i>).	Hume Coll.
σ, τ. ♂ ♀ ad. sk.	Lower Pegu, Nov. 22, 1880 (<i>E. W. O.</i>).	Oates Coll.
υ, φ. ♂ ♀ ad. sk.	Pahpoon, Tenasserim, Dec. 24, 1873 (<i>W. Davison</i>).	Hume Coll.
χ. ♀ ad. sk.	Thatone, Dec. 9, 1877 (<i>W. D.</i>).	Hume Coll.
ψ. ♀ ad. sk.	Tavoy, April 14, 1874 (<i>W. D.</i>).	Hume Coll.
ω. ♀ ad. sk.	Amherst, Feb. 9, 1877 (<i>W. D.</i>).	Hume Coll.
α'. ♂ ad. sk.	Amherst, June 23, 1874 (<i>W. D.</i>).	Hume Coll.
β'. ♀ ad. sk.	Mergui, April 7, 1874 (<i>W. D.</i>).	Hume Coll.
γ', δ'. ♂ ♀ ad.; ε', ζ'. ♂ ♀ juv. sk.	Kaukaryit, June and July (<i>J. Darling</i>).	Hume Coll.

Introduced Specimens.

a. Juv. sk.	Andamans.	Hume Coll.
b. ♂ ad. sk.	Ross Island, Andamans, Mar. 8, 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
c. Ad. sk.	Ross Island, Andamans, Dec. 17, 1872 (<i>R. G. W. R.</i>).	Tweeddale Coll.
d. ♀ ad. sk.	Réunion, Dec. 23, 1864 (<i>Pol- len & Van Dam</i>).	Tweeddale Coll.
e, f. Ad. sk.	Réunion.	J. Van Dam [P.].
g. ♀ ad. sk.	Réunion.	Sharpe Coll.
h. ♂ ad. sk.	Rodriguez.	Rev. H. H. Slater [C.].
i. Ad. sk.	Mauritius (<i>Brewster</i>).	Shelley Coll.
k. Ad. sk.	Madagascar.	Shelley Coll.

Subsp. α. *Acridotheres melanosternus*.

Acridotheres tristis (*nec L.*), *Blyth, Cat. B. Mus. As. Soc.* p. 108 (1849, pt.); *Kelaart, Prodr. Cat.* p. 125 (1852); *Layard, Ann. & Mag. N. H.* (2) xiii. p. 218 (1854); *Holdsw. P. Z. S.* 1872, p. 462; *Hume, Str. F.* 1873, p. 440; *Legge, Ibis*, 1875, p. 275.

Acridotheres melanosternus, *Legge, Ann. & Mag. N. H.* (5) iii. p. 168 (1879); *id. B. Ceylon*, p. 670, pl. xxix. fig. 2 (1879); *Parker, Ibis*, 1886, p. 187.

Adult male. Similar to *A. tristis*, but everywhere much darker, especially on the under surface of the body, which is dark vinous brown, with the throat and chest deeper black, extending also down the centre of the abdomen; the primary-coverts entirely blackish or only edged with white, the quills also much less white at the base than those in *A. tristis*: "bill yellow, blackish at the sides near the base of the lower mandible; legs and feet sickly yellow; orbital skin yellow, extending round the eye, but being very narrow above is hidden by the superciliary feathers; iris variable, pink-brown, and pinkish grey in some, in others whitish, with fine specks of dark colour" (*W. V. Legge*). Total length 10 inches, culmen 0.9, wing 5.65, tail 3.4, tarsus 1.8.

Adult female. Not different from the male. Total length 9.5 inches, culmen 0.9, wing 5.1, tail 3, tarsus 1.45.

Hab. Ceylon.

a-c. Ad. sk.	Ceylon.	T. Thwaites, Esq. [C.].
d. Ad.; e, f. Juv. sk.	Ceylon (<i>S. Chapman</i>).	Tweeddale Coll.
g-l. ♂ ♀ ad. sk.	Ceylon, April, Dec. (<i>S. Chapman</i>).	Tweeddale Coll.
m-o. Ad. sk.	Ceylon (<i>H. Nevill</i>).	Tweeddale Coll.
p. Jun. sk.	Ceylon.	Hume Coll.
q. ♂ ad. sk.	Cotta, Ceylon, Sept. 30, 1877 (<i>Hart</i>).	Hume Coll.
r. Ad. sk.	Ragam Corale, Dec. 4, 1878 (<i>Hart</i>).	Hume Coll.

2. *Acridotheres ginginianus*.

Le Petit Martin de Gingi, *Sonn. Voy. Ind. Orient.* ii. p. 194 (1782).

Gingi Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 144 (1787).

Turdus ginginianus, *Lath. Ind. Orn.* i. p. 362 (1790).

Le Martin gris de fer, *Lerwill. Ois. d'Afr.* ii. pl. 95. fig. 2 (1800);

Schlegel, Cat. Ois. Ind. Néerl. p. 35 (1858). *Walden, Trans. Z. S.* ix.

p. 106; *Reid, Str. F.* 1881, p. 53; *Simson, Ibis*, 1882, p. 86; *Davidson, Str. F.* 1882, p. 312; *Murray, Vertebr. Faun. Sind*, p. 179 (1884); *Swinh. & Barnes, Ibis*, 1885, p. 128.

Pastor griseus (*nec Daud.*), *Wagler, Syst. Av.*, *Pastor*, sp. 9 (1827).

Gracula cinerea, *Valenc.*

Pastor mahrattensis (*nec Sykes*), *Royle, Ill. Bot. Himal.* p. 76 (1839).

Pastor ginginianus, *Blyth, Ann. & Mag. Nat. Hist.* xii. p. 96 (1843).

Pastor gregicolus, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 273. figs. 1, 2 (no. 710); *id. in Gray's Zool. Misc.* p. 84 (1844).

Pastor ginginianus, *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 104 (1846).

Heterornis ginginiana, *Gray, Gen. B.* ii. p. 335 (1847).

Adult male. General colour above light slaty grey, a trifle paler on the rump and upper tail-coverts; lesser wing-coverts dark slaty grey; median coverts greenish black, edged with slaty grey; greater coverts and quills black, externally steel-green, with a bronzy gloss on the secondaries; bastard-wing black, externally tawny buff; primary-coverts light tawny-buff; the primaries also fawn-buff or white at the base; centre tail-feathers greenish black, tipped with tawny buff, all the others broadly banded with tawny buff at the ends, this colour occupying nearly the whole of the outer web of the outermost feather; crown of head and nape black, with a green gloss; lores, feathers in front of the eye, and a line from the base of the bill, including the cheeks and ear-coverts, black; under surface of body light ashy grey; centre of breast, abdomen, and under tail-coverts pinkish isabelline; sides of body, flanks, and thighs slaty grey; under wing-coverts and axillaries tawny buff; quills below black, with a white patch near the base: "bill orange, the tip pale; feet dull orange, toes and claws dull yellow; iris red; naked skin round eye dull red; inside of mouth fleshy" (*J.R.Cripps*). Total length 7.5 inches, culmen 0.85, wing 4.85, tail 2.65, tarsus 1.3.

Adult female. Similar to the male. Total length 8 inches, culmen 0.8, wing 4.65, tail 2.7, tarsus 1.3.

Hab. Afghanistan; Northern and Central portions of the Indian Peninsula.

a. Ad. sk.	Kandahar (<i>Griffith</i>).	India Museum.
b. Ad. sk.	Mooltan (<i>Capt. Tweedie</i>).	Gould Coll.
c, d. ♂ ♀ ad. sk.	Roree Dist., Nov. 1871 (<i>F. Day</i>).	Hume Coll.
e. ♀ ad. sk.	Hydrabad, May 20, 1878 (<i>E. A. Butler</i>).	Hume Coll.
f. Ad. sk.	Rajkote, Kattiwar, Sept. 3, 1871.	Col. Hayes Lloyd [P.].
g, h. ♂ ♀ ad. sk.	Deesa, March, June (<i>E. A. Butler</i>).	Hume Coll.
i-l. ♂; m-p. ♀ ad. sk.	Sambhur, April, June, July (<i>R. M. Adam</i>).	Hume Coll.
q. ♂ ad. sk.	Sambhur, June 16, 1871 (<i>R. M. Adam</i>).	Tweeddale Coll.
r. ♀ ad. sk.	Delhi, Nov. 28, 1876 (<i>C. T. Bingham</i>).	Hume Coll.

s. ♂ ad.; t. ♂ juv. sk.	Umbala, Nov. 1866 (R. C. Beavan).	Tweeddale Coll.
u, v. Ad. sk.	Jerripani, Masuri.	Hume Coll.
w. Ad. sk.	Masuri (S. Pimoull).	Tweeddale Coll.
x, y. Ad. sk.	Masuri.	Pinwill Coll.
z, a'. Ad. sk.	Kumaon.	Hume Coll.
b'. Ad. sk.	Himalayas (Dr. Royle).	India Museum.
c'. Ad. sk.	Futtehghur, Feb. 21, 1877.	Hume Coll.
d'. ♀ ad. sk.	Futtehghur, Jan. 29, 1877.	Hume Coll.
e'. ♀ ad. sk.	Jawulpur, Jan. 29, 1877 (A. Anderson).	Hume Coll.
f. ♂ ad. sk.	Urrum, Feb. 22, 1877 (A. Anderson).	Hume Coll.
g'. Ad. sk.	Mogul Serai, Oudh, Nov. 1873 (W. E. Brooks).	Hume Coll.
h'-o'. Ad. sk.	Nepal (B. H. Hodgson).	India Museum.
p'. Ad. sk.	Behar.	Hodgson Coll.
q'. Ad. sk.	Sikhim Terai, Dec. 1872 (L. Mandelli).	Hume Coll.
r'. Ad. sk.	Bhotan (Pemberton).	India Museum.
s'. Ad. sk.	Bhotan Doars, Feb. 1874 (L. Mandelli).	Hume Coll.
t'. ♂ ad. sk.	Mhow, March 10, 1882.	Col. Swinhoe [P.].
u'. Ad. sk.	Nandurbar, Khandeish, March 27, 1881 (J. Davidson).	Hume Coll.
v'. ♂ ad. sk.	Nandurbar, Khandeish, Dec. 12, 1880 (J. Davidson).	Hume Coll.
w'. Ad. sk.	Dhulia, Khandeish, Oct. 24, 1880 (J. Davidson).	Hume Coll.

3. *Acridotheres fuscus*.

Pastor fuscus, Wagler, *Syst. Av.*, Pastor, sp. 6 (1827); Blyth, *J. A. S. Beng.* xi. p. 886 (1842).

Maina cristatelloides, *Hodgs. Icon. ined. in Brit. Mus., Passeres, App.* pl. 30. figs. 1, 2 (no. 304); *id.* *J. A. S. Beng.* v. p. 771 (1836).

Acridotheres fuscus, Blyth, *J. A. S. Beng.* xiii. p. 962 (1844); *Bp. Consp.* i. p. 420 (1850); *Hornf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 527 (1856, pt.); *Gould, P. Z. S.* 1859, p. 150; *Moore, t. c.* p. 445; *Jerd. B. Ind.* ii. p. 327 (1863); Blyth, *J. A. S. Beng.* xxxi. p. 343, note (1862); *Halden, P. Z. S.* 1866, p. 552; Blyth, *Illus.*

Gracula cristatella, *Sunder. Ann. & Mag. Nat. Hist.* xviii. p. 304 (1846).

Pastor mahrattensis (*nec Sykes*), *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 103 (1846).

Heterornis fusca, *Gray, Gen. B.* ii. p. 335 (1847).

Pastor cristatellus, *Bp. Consp.* i. p. 419 (1850); *Walden, Trans. Z. S.* ix. p. 203 (1877).

Acridotheres cristatelloides, *Cab. Mus. Hein. Th.* i. p. 206 (1850).

Adult male. General colour above dull slaty grey, clearer slaty on the hind neck and mantle; scapulars and upper tail-coverts like the back, lesser and median coverts bronzy brown with ashy margins; greater coverts bronzy brown, edged with black; bastard-wing black; primary-coverts white; quills black, the primaries white at the base, and bronzy brown at the end of the inner web; the secondaries bronzy brown or greenish bronze externally, the inner secondaries like the greater coverts; tail-feathers black, with a greenish gloss on the outer web, and broadly tipped with white; crown of head and nape greenish black, as well as the lores, sides of face, ear-coverts, and cheeks; throat, fore neck, and chest dark slaty grey, shading into ashy isabelline on the breast, sides of body, and flanks; the abdomen purer isabelline; thighs dark slaty grey; under tail-coverts creamy white; under wing-coverts blackish with grey tips; axillaries ashy isabelline, like the breast; quills below blackish, with a large patch of white at the base of the primaries: "bill with the basal half bluish black, the terminal half orange-yellow; mouth bluish; legs orange-yellow, claws greenish horn-colour; iris bright yellow" (*E. W. Oates*). Total length 7·6 inches, culmen 1, wing 4·45, tail 2·6, tarsus 1·3.

Hab. Sub-Himalayan region of the Indian Peninsula to the Central Provinces, eastwards to Assam, Burmah, and Tenasserim.

a. Ad. sk.	Rawul Pindi, April 1875 (<i>Col. Tweeddale Coll. Biddulph</i>).	
b. ♂ ad. sk.	Thannamundi, May 9, 1871 (<i>W. E. Brooks</i>).	Hume Coll.
c. Ad. sk.	Masuri, April 28, 1874 (<i>W. E. Brooks</i>).	Hume Coll.
d-f. Ad. sk.	Masuri (<i>Pinwill</i>).	
g. ♂ ad. sk.	Dehra Doon, Dec. 4, 1871 (<i>Dr. G. King</i>).	Hume Coll.
h. Ad. sk.	Kalsi, April 24, 1868 (<i>G. F. L. Marshall</i>).	Hume Coll.
i. Ad. sk.	Kumaon.	Hume Coll.
k. ♀ ad. sk.	Futtehgurh District, June 19, 1868.	Hume Coll.
l. ♂ ad. sk.	Khatmandu, Nepal Valley, April 19, 1877 (<i>Dr. J. Scully</i>).	Hume Coll.
m, n, o. Ad. sk.	Nepal.	Hodgson Coll.
p, q. Ad. sk.	Nepal (<i>B. H. Hodgson</i>).	India Museum.
r. Ad. sk.	Sikhim, Feb. 1876 (<i>L. Mandelli</i>).	Hume Coll.
s. Ad. sk.	Darjeeling.	C. B. Wharton, Esq. [P.].

t. Ad. sk.	Sikhim Terai, Dec. 1882 (<i>L. Mandelli</i>).	Hume Coll.
u. Ad. sk.	Buxa Doara, Jan. 1878 (<i>L. Mandelli</i>).	Hume Coll.
v. Ad. sk.	Bhootan Terai (<i>L. Mandelli</i>).	Hume Coll.
w. Ad. sk.	N. Khasia Hills, Feb. 1876 (<i>A. W. Chennell</i>).	Tweeddale Coll.
x-z. Ad. sk.	Assam (<i>A. W. Chennell</i>).	Tweeddale Coll.
α'. ♀ ad.; β'. Imm. sk.	Assam (<i>McClelland</i>).	India Museum.
c'. ♀ ad. sk.	Tippook, March 29, 1877 (<i>J. Cockburn</i>).	Hume Coll.
d'. Ad. sk.	Sadhyia, Assam, April 1877 (<i>J. Cockburn</i>).	Hume Coll.
e'. Ad. sk.	Cachar (<i>J. Inglis</i>).	Hume Coll.
f'. ♂ ad. sk.	Faridpur, June 12, 1878 (<i>J. R. Cripps</i>).	Hume Coll.
g'. Ad. sk.	Tippera.	Hume Coll.
h', i'. Ad. sk.	Dacca.	Hume Coll.
k', l'. ♂ ad.; m'. ♀ ad. sk.	Calcutta, December 1872.	Hume Coll.
n', o'. Ad.; p'. Juv. sk.	Raipur.	Hume Coll.
q', r'. ♂ ad. sk.	Raipur, March 1870.	Hume Coll.
s', t'. ♀ ad. sk.	Seoni.	Hume Coll.
u', v'. ♂; w'. ♀ ad. sk.	Pegu, Jan., Sept., Dec. (<i>E. W. O.</i>).	Oates Coll.
x'. Ad. sk.	Pegu, Jan. 1875 (<i>E. W. O.</i>).	Hume Coll.
y'. Ad. sk.	Pegu, Feb. 1875 (<i>E. W. O.</i>).	Hume Coll.
z'. ♀ ad. sk.	Rangoon, June 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
α'', β'', γ''. Ad. sk.	Rangoon, Dec. 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
δ''. ♂ ad. sk.	Rangoon, Nov. 29, 1875 (<i>J. Armstrong</i>).	Hume Coll.
ε''. ♀ ad. sk.	Syriam, Jan. 11, 1876 (<i>J. Armstrong</i>).	Hume Coll.
ζ''. ♀ ad. sk.	Elephant Point, Dec. 1, 1875 (<i>J. Armstrong</i>).	Hume Coll.
η''. Ad. sk.	Tonghoo.	Tweeddale Coll.
θ'', i''. ♀ ad. et j. sk.	Tonghoo, May, June (<i>R. G. W. R.</i>).	Tweeddale Coll.

β. Ad. sk.	Pabyouk, March 13, 1874 (<i>W. D.</i>).	Hume Coll.
γ, δ, ε. ♂ ad. sk.	Yeaboo, March 10, 1874 (<i>W. D.</i>).	Hume Coll.
ζ, η. ♀ ad. et imm. sk.	Amherst, March, June (<i>W. D.</i>).	Hume Coll.
θ. ♀ ad. sk.	Lemyne, March 28, 1874 (<i>W. D.</i>).	Hume Coll.
ι, κ. ♂ ♀ ad. sk.	Tavoy, March 21, 1878 (<i>W. D.</i>).	Hume Coll.
λ, μ. ♂ ♀ ad. sk.	Mergui, Nov. 1874 (<i>W. D.</i>).	Hume Coll.
ν, ξ. ♂ ♀ ad. sk.	Penang, July 9, 1879 (<i>W. D.</i>).	Hume Coll.
ο, π. Ad. sk.	Penang (<i>Dr. Cantor</i>).	India Museum.
ρ. ♂ ad. sk.	Jerome, Salangore, Aug. 15, 1879 (<i>W. Davison</i>).	Hume Coll.
σ. Ad. sk.	Malacca (<i>Dr. Cantor</i>).	India Museum.

Subsp. α. *Acridotheres mahrattensis*.

Pastor mahrattensis, *Sykes*, *P. Z. S.* 1832, p. 95.

Pastor fuscus (*nec Wagler*), *Jerd. Madr. Journ.* xi. p. 21 (1840).

Acridotheres fuscus, *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 537 (1856, pt.); *Hume, Nests & Eggs Ind. B.* p. 431 (1873, pt.); *Fairb. Str. F.* 1876, p. 206; *Vidal, Str. F.* 1880, p. 70; *Terry, Str. F.* 1887, p. 478; *Taylor, Str. F.* 1887, p. 462.

Acridotheres mahrattensis, *Blyth, Ibis*, 1873, p. 79; *Morgan, Ibis*, 1875, p. 322; *Hume, Str. F.* 1879, p. 106; *Davison, Str. F.* 1883, p. 400.

Adult male. Similar to *A. fuscus*, but much larger, and having a blue iris; the sides of the body more ashy, and not so isabolline: "bill orange-yellow, dusky on the sides of the base; legs and feet yellow; iris blue" (*E. A. Butler*). Total length 10 inches, culmen 1, wing 5, tail 3, tarsus 1.4.

Adult female. Similar to the male. Total length 10 inches, culmen 0.95, wing 4.8, tail 3, tarsus 1.35.

Hab. Replaces the foregoing species in Southern India, ranging as high as the Godavery Valley on the east, and the neighbourhood of Ahmedabad on the west.

a. Ad. sk.	Ahmedabad.	Hume Coll.
b. Ad. sk.	Marsapatam, near Rajamundri.	Hume Coll.
c. Ad. sk.	Deccan (<i>Col. Sykes</i>).	India Museum.
d, e. ♂; f. ♀ ad. sk.	Mahabaleshwur Hills, March, May, Nov. (<i>S. B. Fairbank</i>).	Hume Coll.
g, h. ♂; i, k, l. ♀ ad. sk.	Khandala, April, May (<i>S. B. F.</i>).	Tweeddale Coll.
m. ♂ ad. sk.	Bankot, S. Konkan, April 7, 1878 (<i>G. Vidal</i>).	Hume Coll.
n. ♀ ad. sk.	Kelsi, March 9, 1878 (<i>G. Vidal</i>).	Hume Coll.
o. ♂ ad. sk.	Gohagar, March 6, 1879 (<i>G. Vidal</i>).	Hume Coll.
p, q, r. ♂; s. ♀ ad. sk.	Belgaum, Nov. 1880 (<i>Col. E. A.</i> <i>Butler</i>).	Hume Coll.
t. ♂ ad. sk.	Nellacotta, Wynaad, March 20, 1881 (<i>W. Davison</i>).	Hume Coll.
u, v. ♂ ♀ ad. sk.	Seegore, Nov. 22, 1882.	W. Davison, Esq. [P.]

<i>w-d.</i> ♂; <i>s-m'.</i> ♀ ad. sk.	Ootacamund, Jan.-April (<i>W.D.</i>). Hume Coll.
<i>n.</i> ♂ ad.; <i>o.</i> ♀ juv. sk.	Ootacamund, June 1876 (<i>R. M. Adam</i>). Tweeddale Coll.
<i>p.</i> ♀ ad. sk.	Kotagherry, Nilghiris, June 18, 1874 (<i>Miss Cockburn</i>). Hume Coll.
<i>q.</i> ♀ ad. sk.	Coonoor, Jan. 24, 1881 (<i>W.D.</i>). Hume Coll.
<i>r.</i> ♂ ad. sk.	Coonoor, Feb. 6, 1873 (<i>Dr. F. Day</i>). Hume Coll.
<i>s.</i> Ad. sk.	Coonoor, Aug. 22, 1876 (<i>R. G. W.R.</i>). Tweeddale Coll.
<i>t.</i> Ad. sk.	Travancore. F. W. Bourdillon, Esq. [C.].
<i>u.</i> Ad. sk.	Anjango, Travancore, Dec. 1872. Hume Coll.
<i>v.</i> Ad. sk.	Madras. Gould Coll.
<i>w.</i> ♂ ad. sk.	Madras. Hume Coll.
<i>x.</i> Imm. sk.	Madras. India Museum.
<i>y.</i> ♀ ad. sk.	Shivarai Hills, Feb. 11, 1869 (<i>A. G. R. Theobald</i>). Hume Coll.

4. *Acridotheres javanicus*.

Pastor griseus (*nec Daud.*), *Horsf. Trans. Linn. Soc.* xiii. p. 151 (1820).

Pastor cristatellus (*nec L.*), *Wagler, Syst. Av., Pastor*, sp. 14 (1827).

Acridotheres griseus, *Bp. Consp.* i. p. 420 (1850); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 80 (1883).

Acridotheres javanicus, *Cab. Mus. Hein. Th.* i. p. 205 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 536 (1856); *Nicholson, Ibis*, 1881, p. 153; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlv. p. 393 (1886), xlv. p. 87 (1887).

Adult male. Grey, both above and below, the head also washed with grey, the frontal crest very small, and consisting of a few dense lanceolated plumes; wing-coverts and secondaries bronzy brown, edged with black and contrasting with the back; primary-coverts white with black bases; base of primaries white; under wing-coverts white or creamy white; tail-feathers also narrowly tipped with white; first primary black: "iris yellow" (*H. O. Forbes*). Total length 8.5 inches, culmen 1.25, wing 5, tail 2.75, tarsus 1.3.

5. *Acridotheres cinereus*.

Acridotheres cinereus, *Bp. Conspectus* i. p. 420 (1850, ex *Müller, MSS.*); *Gray, Hand-l. B.* ii. p. 20, no. 6288 (1870); *Walden, Trans. Z. S.* viii. p. 77, pl. x. fig. 1 (1874); *Meyer, Ibis*, 1879, p. 134.

Adult male. General colour above ashy grey; scapulars like the back, and slightly lighter ashy; upper tail-coverts grey; lesser wing-coverts brown, edged with ashy grey; median and greater coverts brown; bastard-wing black, the inner feather white externally; primary-coverts white, blackish at the extreme base; quills black, white at the extreme base of the primaries, the secondaries brown like the greater coverts; tail-feathers blackish brown, broadly tipped with white, forming a terminal band; crown of head ashy black, the crest-feathers long, with a short recurved crest over the nostrils; hind neck like the back; lores, eyelid, sides of face, ear-coverts, and cheeks ashy blackish; chin, malar line, throat, sides of neck, and fore neck ashy grey; chest and remainder of under surface of body lighter ashy, the abdomen greyish white; sides of body, flanks and thighs light ashy grey; under tail-coverts white; under wing-coverts and axillaries dark ashy brown, edged with white; quills below blackish, with a white patch at the base of the primaries. Total length 10 inches, culmen 1.1, wing 5.35, tail 3.3, tarsus 1.35.

Adult female. Similar in plumage to the male. Total length 9 inches, culmen 1.05, wing 4.9, tail 2.8, tarsus 1.3.

Hab. Celebes and Togian Islands.

<i>a, b.</i> ♂ ♀ ad. sk.	Makassar, Celebes.	Wallace Coll.
<i>c.</i> ♂ ad. sk.	Makassar (<i>A. R. Wallace</i>).	Gould Coll.
<i>d.</i> ♀ ad. sk.	Makassar (<i>A. R. Wallace</i>).	Tweeddale Coll.
<i>e.</i> ♀ ad. sk.	Tanette, S. Celebes.	Dr. A. B. Meyer [C.].

6. *Acridotheres grandis*.

Pastor cristatellus (*nec L.*), *Vig. Mem. Raffl.* p. 664 (1830).

Acridotheres grandis, *Moore, Cat. B. Mus. E.I. Co.* ii. p. 537 (1856)*; *Gray, Hand-l. B.* ii. p. 20, no. 6288 (1870).

Acridotheres javanicus (*nec Cab.*), *Gould, P. Z. S.* 1859, p. 151.

Acridotheres siamensis, *Swinh. P. Z. S.* 1863, p. 303; *Gray, Hand-l. B.* ii. p. 20, no. 6286 (1870); *Swinh. P. Z. S.* 1871, p. 303; *Wardlaw Ramsay, Ibis*, 1875, p. 351, 1877, p. 461; *Walden, in Blyth, B. Burm.* p. 90 (1875); *id. Trans. Z. S.* ix. p. 203 (1877); *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Anders. Zool. Exped. Yunnan*, p. 594 (1878); *Hume & Davison, Str. F.* vi. p. 388 (1878); *Tiraud, Bull. Soc. Agric. Coch. China*, 1879, p. 136; *Hume, Str. F.* viii. p. 106 (1879), ix. p. 285; *Oates, B. Brit. Burm.* i. p. 381 (1883); *Salvad. Ann. Mus. Civic. Genov.* (2) iv. p. 603 (1887); *Hume, Str. F.* ix. p. 264 (1888).

* The types of *A. grandis* were received from the India Museum in 1880, and are marked as from Sumatra.

Adult. Similar to *A. cristatellus*, but distinguished by its enormous crest, black bastard-primary, white under tail-coverts, and much broader white tips to the tail-feathers: "bill rich wax-yellow; feet wax-yellow, claws brown; iris light reddish brown or hazel" (*A. O. Hume*). Total length 9 inches, culmen about 1.1, wing 5.5, tail 3.1, tarsus 1.6.

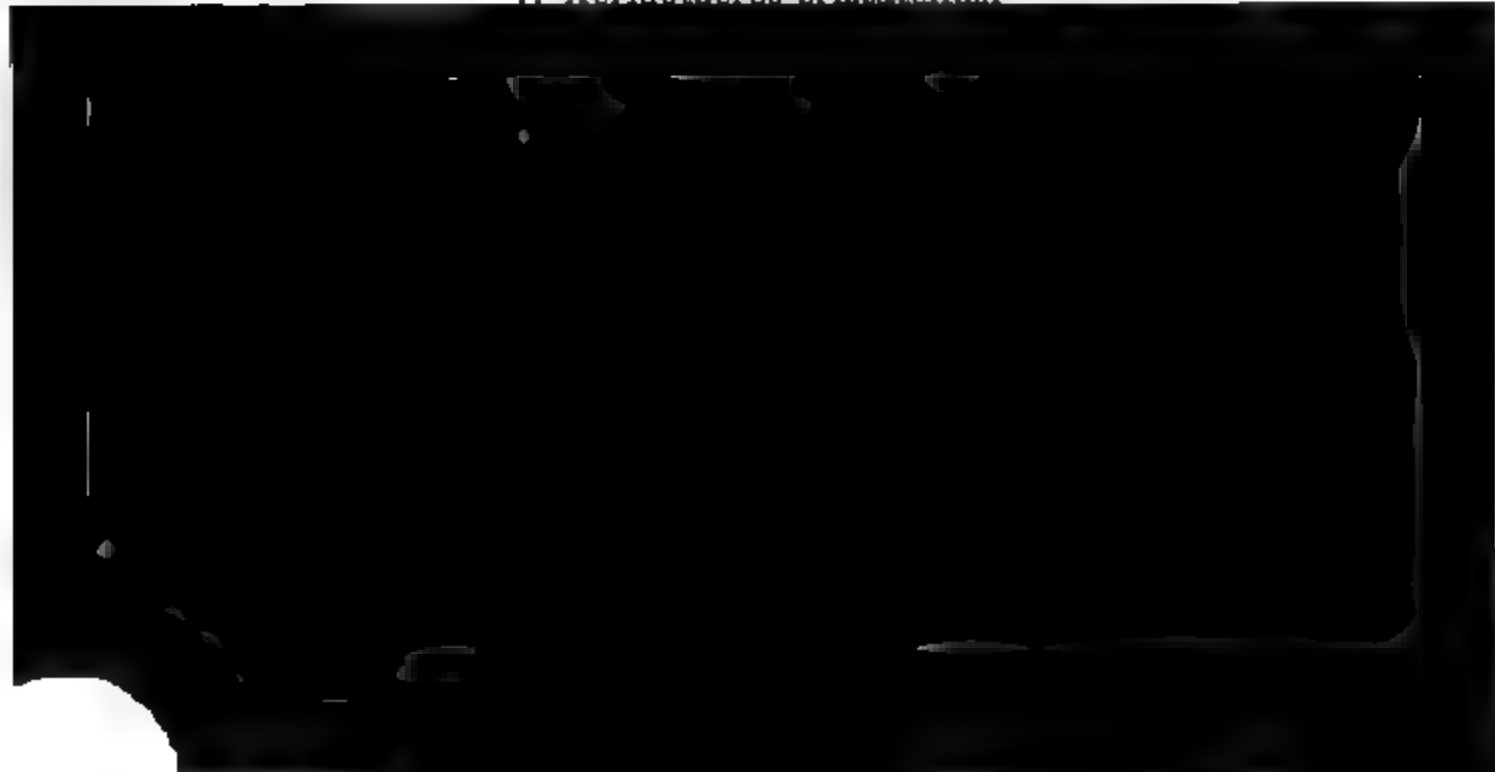
The Manipur birds are not nearly so strongly crested as the specimens from Siam, but those from the Tenasserim frontier are intermediate. Moore's *A. grandis* from Sumatra is absolutely the same bird as *A. siamensis*, and it is doubtful if the specimens are really from Raffles's collection.

Hab. Cochin China, Siam and Cambodia to Upper Burma, and thence to Manipur.

a. Ad. sk.	Siam (<i>Sir R. Schomburgk</i>).	Seeböhm Coll. (Type of <i>A. siamensis</i> .)
b. Ad. sk.	Siam.	M. Mouhot [C.].
c, d. ♂ ad. sk.	Bangkok, March 20, 1872 (<i>Conrad</i>).	R. B. Sharpe, Esq. [P.].
e. Ad. sk.	Siam.	M. E. Pierre [P.].
f. Ad. sk.	Cambodia (<i>Mouhot</i>).	Tweeddale Coll.
g, h. ♂ ad. sk.	Karen-nee, March 1874 (<i>R. G. W. R.</i>).	Tweeddale Coll.
i. Ad. sk.	Burmah.	W. T. Blanford, Esq. [P.].
k. Ad. sk.	Mungla, Sauda Valley, May 18, 1868.	Dr. J. Anderson [C.].
l. ♂ ad. sk.	Moirang, Manipur, March 21, 1881 (<i>A. O. H.</i>).	Hume Coll.
m. ♂ ad. sk.	Soongnoo, Manipur, March 26, 1881 (<i>A. O. H.</i>).	Hume Coll.
n. ♂ ad. sk.	Logtak Lake, Manipur, March 18, 1881 (<i>A. O. H.</i>).	Hume Coll.
o. ♂ ad. sk.	Kokshin-Koollel, April 7, 1881 (<i>A.</i> <i>O. H.</i>).	Hume Coll.
p, q. Ad. sk.	Tenasserim River, Dec. and Jan.	Hume Coll.
r, s. Ad. sk.	[Sumatra (<i>Raffles</i>).]	India Museum.

(Types of *A. grandis*, Moore.)

7. *Acridotheres cristatellus*.

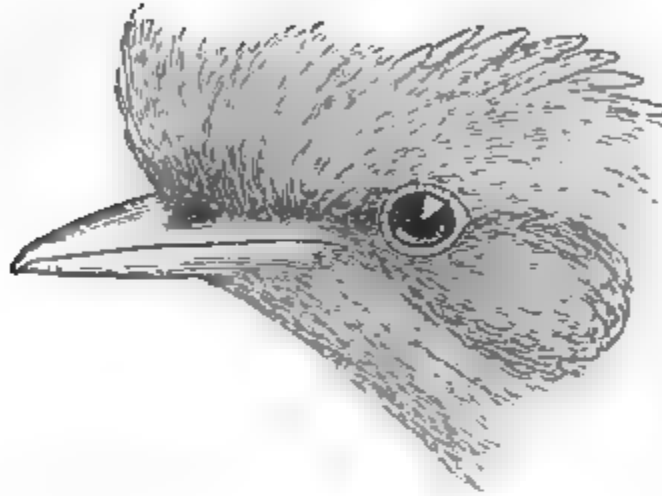


Tr. Z. S. ix. p. 202 (1875); *Tweedd. P. Z. S.* 1877, p. 698; *David & Oust. Ois. Chine*, p. 365, pl. 86 (1877); *Slater, Ibis*, 1882, p. 434; *Seeböhm, Ibis*, 1884, p. 266.

Acridotheres fuliginosus, *Blyth, J. A. S. Bang.* xiii. p. 302 (1844, = juv.).

Merula philippensis, "*Brisson*," *Bp. Cons.* i. p. 420 (1850, *neo Brisson*).

Acridotheres philippensis, *Bp. Cons.* i. p. 420 (1850); *Swinh. Ibis*, 1870, p. 352; *Gray, Hand-l. B.* ii. p. 20, no. 6287 (1870).



Head of *A. cristatellus*, to show feathered region of the eye.

Adult. Glossy black, with a slight purplish reflexion on the back, greenish on the head, lower back, and rump; wings black, one of the bastard-wing feathers white towards the end of the outer web; primary-coverts white for their terminal half, and the primaries white for their basal half; the secondaries white at the base of the inner web; under surface of body ashy black, the under wing-coverts and under tail-coverts white at the ends, broader on the latter; tail-feathers black, with small white tips; crest-feathers moderately long, with a short crest of dense, slightly recurved plumes over the base of the bill; first (bastard) primary white with a black tip: "bill pale yellow, with the base rose-coloured; feet orange-red; iris orange-yellow" (*A. David*). Total length 10.5 inches, culmen about 1.15, wing 5.75, tail 3.25, tarsus 1.6.

Young. Brown instead of black, with no crest on the head, only the frontal plumes being close-set: "bill yellowish horn-colour; roof of mouth, inside of bill, and tip of tongue yellow, the rest flesh-colour with a bluish-black tinge; legs light brownish yellow on the underparts, sole, and joints of scales, the rest purplish brown, darker on the claws; iris slight greenish yellow" (*R. Swinhoe*).

Hab. Central and Southern China. Also the island of Luzon in the Philippines, to which locality it is supposed to have been introduced.

a-c. Ad. sk.

China.

d. Juv. sk.

China (*Reeves*).

e. Ad. sk.

Shanghai, Jan. 8, 1870 (*R. Bergman*).

India Museum.

Tweeddale Coll.

<i>f.</i> ♀ ad. sk.	Chekiang Province, May 1875 (<i>W. B. Pryer</i>).	Tweeddale Coll.
<i>g.</i> ♀ ad. sk.	Ningpo.	J. R. Reeves, Esq. [P.]
<i>h-l.</i> Ad. et juv. sk.	Amoy, May, April, Oct. (<i>R.</i> <i>Swinhoe</i>).	
<i>m.</i> ♀ ad. sk.	Amoy (<i>G. Schlegel</i>).	Salvin-Godman Coll.
<i>n, o.</i> Ad. sk.	Fokien.	Gould Coll.
<i>p.</i> Ad. sk.	Canton.	Tweeddale Coll.
<i>q.</i> Ad. sk.	Canton, April 1860 (<i>R. Swinhoe</i>).	Seebohm Coll.
<i>r.</i> ♂ ad. sk.	Whampon, April 17, 1860 (<i>R.</i> <i>Swinhoe</i>).	Seebohm Coll.
<i>s.</i> ♀ ad. sk.	Macao, March 15, 1866 (<i>R.</i> <i>Swinhoe</i>).	Seebohm Coll.
<i>t, u.</i> ♀ ad. sk.	Naochow Island, Feb. 1868 (<i>R.</i> <i>Swinhoe</i>).	
<i>v, w.</i> ♂ ad. sk.	Hainan, Feb. 1868 (<i>R. Swinhoe</i>).	
<i>x, y.</i> Ad. sk.	S.W. Formosa (<i>R. Swinhoe</i>).	
<i>z.</i> Ad. sk.	Takow, Nov. 1865 (<i>R. Swinhoe</i>).	Seebohm Coll.
<i>a'</i> . ♂ ad. sk.	Szechuen, W. China, May 22 (<i>R.</i> <i>Swinhoe</i>).	Seebohm Coll.
<i>b'</i> . ♂ ad. sk.	Luzon, April 1872 (<i>A. B. Meyer</i>).	Tweeddale Coll.
<i>c'</i> . ♀ ad. sk.	Luzon, Jan. 1872 (<i>A. B. Meyer</i>).	Tweeddale Coll.
<i>d', e'</i> . ♂ ♀ ad. sk.	San Mateo, Luzon, Feb. 1872 (<i>A. Everett</i>).	Tweeddale Coll.

8. *Acridotheres albocinctus*.

Acridotheres albocinctus, *Godwin-Austen & Wald. Ibis*, 1875, p. 251 ; *Godwin-Austen, J. A. S. Beng.* xlv. pt. 2, p. 200, pl. 5 (1876) ; *Hume, Str. F.* 1876, p. 217 ; *id. Str. F.* 1879, p. 106 ; *Oates, B. Brit. Burm.* i. p. 382 (1883) ; *Salvad Ann. Mus. Civic. Genov.* (2) iv. p. 604 (1887) ; *Oates, Ibis*, 1888, p. 72, pl. i. ; *Hume, Str. F.* xi. p. 262 (1888).

Adult male. General colour black, with a greenish-grey gloss ; wings also black, but the greater coverts and secondaries inclining to deep bronzy brown, edged with black : primary-coverts tipped with black ; primaries also conspicuously white at the base ; tail-feathers black, all but the centre ones tipped with white ; on the sides of the neck a large patch of creamy buff, deepening to fawn-colour behind the ear-coverts, forming a collar which is interrupted on the hind neck, where the feathers are black with creamy-white centres ; head much crested, the nasal plumes erect and somewhat recurved ; under surface of body greyish black, the under tail-coverts tipped with white ; under wing-coverts and axillaries blackish, the latter with a white tip ; quills black below, white at the base of the inner web : " bill pale wax-yellow, orange just at base of lower mandible ; legs and feet deep wax-yellow ; claws very pale horny brown ; iris yellowish white " (*A. O. Hume, MSS.*). Total length 10 inches, culmen 1.1, wing 5.2, tail 2.3, tarsus 1.5.

Adult female. Similar to the male. Total length 9 inches, culmen 1, wing 4.9, tail 3.1, tarsus 0.85.

There is scarcely any variation in plumage in the series of Manipur skins presented by Mr. Hume. Some specimens have a slight indi-

cation of greyish-white edgings to the feathers of the abdomen, and those killed towards the end of March have a tendency to purplish rather than to greenish reflexions on the upper surface.

Hab. Manipur to Upper Burmah.

<i>a, b.</i> ♂ ♀ ad. sk.	Manipur, Feb. 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>c, d.</i> ♂; <i>e-g.</i> ♀ ad. sk.	Manipur Khas, Feb. 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>h.</i> ♀ ad. sk.	Manipur, March 1, 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>i, k.</i> ♂; <i>l-n.</i> ♀ ad. sk.	Sagam, Manipur, March 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>o.</i> ♂ ad. sk.	Koombu, Manipur, March 31, 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>p, q.</i> ♂ ♀ ad. sk.	Soognoo, Manipur, March 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>r.</i> ♂ ad. sk.	Between Manipur and Boori Bazar, March 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>s-w.</i> ♂ ad.; <i>x-d.</i> ♀ ad. sk.	Boori-Bazar, Manipur, March 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>e'-n'.</i> ♂ ad.; <i>o'-r'.</i> ♀ ad. sk.	Moirang, Manipur, March 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>s'-u'.</i> ♂ ad.; <i>v'.</i> ♀ ad. sk.	Logtak Lake, Manipur, March 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>w'.</i> ♂ ad.; <i>x', y'.</i> ♀ ad. sk.	Kokshin-Koolel, Manipur, April 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>z'.</i> ♀ ad. sk.	Hierok, Manipur, May 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>a''-b''.</i> Ad. sk.	Bhamo, Upper Burmah.	Oates Coll.

11. BASILEORNIS.

Basilornis, *Bp. Consp.* i. p. 420 (1850, *ex Temm. MSS.*) . ^{Type.} *B. celebensis*.
Basileornis, *Walden, Trans. Z. S.* viii. p. 77 (1872, *nom. emend.*).

Range. Celebes; Ceram.

Key to the Species.

- a.* Crest very long, arising from the occiput *celebensis*, p. 95.
b. Centre of crown crested in a ridge of close-set plumes, not developing into a long occipital crest . *corythaix*, p. 96.

1. *Basileornis celebensis*.

Basilornis corythaix, pt., *Bp. Consp.* i. p. 420 (1850).

Basilornis celebensis, *Wall. Ibis*, 1861, p. 284, pl. ix. fig. 2; *Gray, P. Z. S.* 1861, p. 184, fig. 2; *Finsch, Neu-Guinea*, p. 174 (1865); *Gray, Hand-l. B.* ii. p. 19, no. 6279 (1870); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 77 (1877); *Meyer, Ibis*, 1879, p. 133; *Blasius, Zeitschr. ges. Orn.* ii. p. 298 (1886).

Basileornis celebensis, *Walden, Trans. Z. S.* viii. p. 77 (1872).

Adult. General colour above glossy greenish black, with here and there some hair-like white plumelets; lesser wing-coverts like the back; median coverts black, edged with glossy steel-green, less distinct on the greater series, which are black, externally purplish;

quills black, externally glossed with purplish or steel-green; tail-feathers black, slightly purplish on the outer web; head and neck rather scaly in appearance, with a purplish crest of closely-pressed feathers reaching along the centre of the crown from the posterior half of the bill to the hind neck; sides of crown, sides of face, ear-coverts, and under surface of body glossy greenish black, with frequent hair-like white plumelets on the face and throat; on the ear-coverts a patch of white feathers, followed by some stiffened plumes of ochreous brown; on each side of the breast a large patch of yellowish white; under wing-coverts and axillaries black, glossed with steel-green; quills brown, ashy whitish on the inner web: "bill whitish blue-grey; feet citron-yellow" (*Platen*). Total length 9 inches, culmen 0.95, wing 4.9, tail 3.2, tarsus 1.05.

Young. Dusky black, the feathers of the upper surface broadly edged with glossy green; the head without any erect crest, the feathers velvety black, glossed with green; white patch on sides of chest, and white spot on hinder cheeks both developed, but without any yellow tinge; under surface of body brown, streaked with central spots of black, which have a glossy green appearance near the ends.

Hab. Celebes.

a, b. Ad sk.	Gorontalo, N. Celebes.	Tweeddale Coll.
c, d. Ad. sk.	Menado.	Gould Coll.
e. ♂ ad. sk.	Menado.	Wallace Coll.
f. ♀ ad.; g. Juv. sk.	Makassar.	Wallace Coll.
h. ♂ ad. sk.	Makassar (<i>Wallace</i>).	Gould Coll.

2. *Basileornis corythaix*.

Pastor corythaix, *Wagler, Syst. Av.*, *Pastor*, sp. 4 (1827).

Heterornis corythaix, *Gray, Gen. B.* ii. p. 335 (1847).

Basilornis corythaix, *Wall. Ibis*, 1861, p. 284, pl. xi. fig. 1; *Gray, P. Z. S.* 1861, p. 184, fig. 1; *Finsch, Neu-Guinea*, p. 174 (1865); *Gray, Hand-l. B.* ii. p. 10, no. 6278 (1870); *Pelz. Verh. z.-b. Gesellsch. Wien*, 1872, p. 430; *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 77 (1877); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 195 (1880); *id. Orn. Papuasie etc.* ii. p. 400 (1881).

Adult male. Similar to *B. corythaix* but distinguished by the form

1. *Sarcops calvus*.

- Le Merle chauve des Philippines, *Brisson. Orn.* ii. p. 280, pl. xxxvi. fig. 2 (1760); *Daubenton. Pl. Enl.* iv. pl. 200.
Gracula calva, *Linn. Syst. Nat.* i. p. 164 (1766); *Gm. Syst. Nat.* i. p. 396 (1788); *Daud. Traité*, ii. p. 600 (1800); *Kittl. Kupf. Vög.* p. 9, pl. xiii. fig. 2 (1832); *Gray, Gen. B.* ii. p. 330 (1845).
 Le Goulin, *Montb. Hist. Nat. Ois.* iii. p. 420 (1775).
 Bald Grackle, *Lath. Gen. Syn.* ii. pt. 2, p. 457 (1782).
Acridotheres calvus, *Bonn. et Vieill. Enc. Méth.* ii. p. 680 (1823).
Gymnops calvus, *Cuvier, Règne Anim.* i. p. 381 (1829); *Bp. Consp.* i. p. 422 (1850); *Licht. Nomencl. Ac.* p. 52 (1854); *Walden & Layard, Ibis*, 1872, p. 103.
Gymnops griseus, *Meyen, N. Acta Acad. C. L.-C. G. Nat. Cur.* xvi. *Suppl. prim.* p. 78 (teste Walden).
Mino calvus, *Blyth, Cat. B. Mus. As. Soc.* p. 111 (1849).
Eulabes tricolor, *Gray, Hand-l. B.* ii. p. 19, no. 6275 (1870).
Sarcops calvus, *Walden, Trans. Z. S.* ix. p. 205 (1875); *Sharpe, Trans. Linn. Soc. new ser.* i. p. 344 (1876); *Tweedd. P. Z. S.* 1877, pp. 609, 764, 831; *id. P. Z. S.* 1878, pp. 113, 287, 343; *Wardlaw Ramsay, Orn. Mem. Tweedd.* p. 658 (1881); *Guillem. P. Z. S.* 1885, p. 267.
Sarcops lowii, *Sharpe, Trans. Linn. Soc., 2nd ser. Zool.* i. p. 344 (1876); *id. P. Z. S.* 1879, p. 315.

Adult male. General colour above dark silvery grey, all the feathers ashy blackish at base; a white shoulder-patch on the upper part of the scapulars; wings and tail entirely black; head bare, excepting the lores and base of the forehead, which are black, this extending in a narrow line down the centre of the head, and joining a narrow black collar on the nape which extends round to the ear-coverts and cheeks, which with the under surface of the body are entirely black; sides of body and flanks silvery grey; thighs black; under tail-coverts black, washed with dark silvery grey; under wing-coverts and axillaries black; quills brownish black below: "bill and legs black; bare skin of face white, tinged with pink; iris bright brown" (*A. Everett*). Total length 10·5 inches, culmen 1·2, wing 5, tail 4·3, tarsus 1·3.

Adult female. Similar to the male: "bill and feet black; iris brown" (*L. C. Layard*). Total length 10·5 inches, culmen 1·2, wing 5·2, tail 4·65, tarsus 1·25.

Sarcops lowi was described by me from the island of Si Butu in the Sulu Archipelago, but the differences on which I depended for its specific separation do not hold good. Both males and females are in the collection with the back entirely grey, and with the breast entirely black. From the remains of grey both above and below overspreading the black plumage, it would appear that the pure silvery-grey colour is a seasonal plumage. Specimens from Leyte, Basilan, and Mindanao are rather small (wing 5 inches), while the Sulu birds are large (wing 5·25).

Hab. Philippine and Sulu Islands: Luzon, Cebu, Guimaras, Negros, Leyte, Dinagat, Mindanao, Basilan, Si Butu.

a. Ad. sk.	Manila, Luzon (<i>Maitland-Heriot</i>).	Tweeddale Coll.
b, c. Ad. sk.	Manila.	Gould Coll.
d. ♀ ad. sk.	San Mateo, Luzon, Feb. 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
e. ♂ ad. sk.	Monte Alban, Luzon, Feb. 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
f. ♀ ad. sk.	Cebu, April 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
g, h. ♂ ♀ ad. sk.	Guimaras, March 1872 (<i>A. B. Meyer</i>).	Tweeddale Coll.
i. Ad. sk.	Negros.	Prof. J. B. Steere [C.].
k. ♀ ad. sk.	Negros, March 1871 (<i>L. C. Layard</i>).	Tweeddale Coll.
l, m. ♂ ♀ ad. sk.	Dumaguete, Negros, Aug. 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
n, o. ♂ ♀ ad. sk.	Amparo, S. Leyte, July 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
p. ♂ ad. sk.	Dinagat Island, June 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
q. ♀ ad. sk.	Surigao, N. Mindanao, May 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
r. ♀ ad. sk.	Butuan, N. Mindanao, May 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
s. ♀ ad. sk.	Zamboanga, Mindanao, March 1878 (<i>A. H. Everett</i>).	Tweeddale Coll.
t. ♂ ad. sk.	Basilan, June 1878 (<i>A. H. Everett</i>).	Tweeddale Coll.
u. Ad. sk.	Si Butu, Sulu Islands.	Sir Hugh Low [C.]. (Type of <i>S. lowii</i> .)
v. Ad. sk.	Sulu Islands (<i>Barbidge</i>).	H. Veitch, Esq. [P.].

13. MAINATUS *.

Type.

Gracula, *Linn. Syst. Nat.* i. p. 164 (1760, pt.).Mainatus, *Less. in Férussac Bull.* x. p. 158 (1827).. *M. religiosus*.Eulabes, *Cuvier, Règne Anim.* i. p. 377 (1820) *M. intermedius*
(s. n. *E. indica*).Maina, *Hodgs. J. A. S. Beng.* v. p. 771 (1836) *M. intermedius*.*Range.* India, Pininsular (Java), Ceylon, Andaman, and Nicobar

Key to the Species.

- a. A bare patch of yellow skin below the eye.
- a'. Bare wattled skin extending in two lines,
one from the lappet to behind the eye and a
second inner one to nearly the centre of
the crown (see fig.).
- a''. Smaller: hind neck purple; back steel-
green; throat steel-green; chest purple. *religiatus*, p. 90.
- b'. Larger: bill much stouter; glossed with
oily-green on the upper and under sur-
face *renewatus*, p. 101.
- b'. Only one line of bare skin behind the crown
extending from the lappet to the eye; no
second median line.
- c''. Postocular line of black feathers joined } *javanensis*, p. 102.
to the ear-coverts } *palawanensis*, p. 104.
- d'. Smaller: a distinct space between the
posterior black line of feathers on the
sides of the face and the ear-coverts.... } *intermedius*, p. 104.
 } *andamanensis*, p. 107.
 } *robustus*, p. 109.
- b. No bare patch of yellow skin below the eye,
the whole sides of face feathered *ptilogenys*, p. 109.

1. Mainatus religiosus †.

The Minor, *Albin, Nat. Hist. B.* ii. pl. 38 (1738).

The Minor or Mino, *Edwards, Nat. Hist. B.* i. p. 17, pl. 17 (1743).

Le Grand Mainate, *Briss. Orn.* ii. p. 308 (1760).

Gracula religiosa, *Linn. Syst. Nat.* i. p. 164 (1766); *Jerd. Madr. Journ.* xi. p. 24 (1840); *A. Hay, Madr. Journ.* xiii. pt. 2, p. 156 (1844); *Gray, Gen. B.* ii. p. 330 (1845, pt.); *Blyth, J. A. S. Beng.* xv. p. 31 (1846); *id. Cat. B. Mus. As. Soc.* p. 109 (1849); *Bp. Consp.* i. p. 422 (1850); *Cab. Mus. Hein.* Th. i. p. 207 (1850); *Layard, Ann. N. H.* (2) xiii. p. 216 (1854); *Schl. N. T. D.* i. p. 3, pl. i. fig. 1 (1863).

Le Mainate des Indes Orientales, *Daubent. Pl. Enl.* iv. pl. 208.

Minor Grackle, *Lath. Gen. Syn.* i. pt. 2, p. 455 (1783).

Mainatus religiosus, Less. in *Férussac, Bull.* x. p. 158 (1827).

Gracula indica, *Blyth, J. A. S. Beng.* xii. p. 178* (1843).

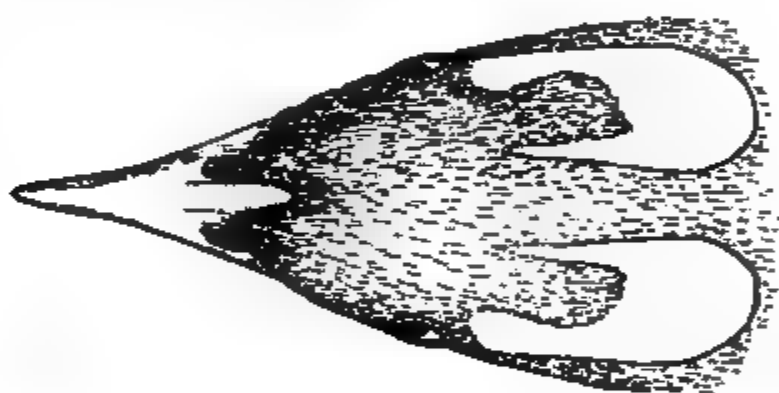
Gracula minor, *A. Hay*, *Madr. Journ.* xiii. pt. 2, p. 134 (1844).

Eulabes religiosa, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 522 (1856); *Jerd. B. Ind.* ii. p. 337 (1863); *Blyth, Ibis*, 1867, p. 40; *Melliss, Ibis*, 1870, p. 101; *Gray, Hand-l. B.* ii. p. 18, no. 6264 (1870); *Holdsw. P. Z. S.* 1872, p. 463; *Hume, Nests & Eggs Ind. B.* p. 435 (1873); *Ball, Str. F.* 1874, p. 420; *Hume, Str. F.* 1876, p. 402; *Fairb. Str. F.* 1877, p. 407; *Ball, Str. F.* vii. p. 221 (1878); *Legge, B. Ceylon*, p. 682 (1879); *Hume, Str. F.* 1879, p. 106; *Davison, Str. F.* 1883, p. 401; *Taylor, Str. F.* 1887, p. 462; *Terry, Str. F.* 1887, p. 478.

† All the early figures of Wattled Mynahs are very inaccurate, and so are the descriptions founded on these ancient plates. It would, however, be a mistake to alter names now in common use; but it must be understood that the older synonyms generally attributed to *G. religiosa* are somewhat problematical.

Adult male. General colour above greenish black; hind neck and upper mantle purple; crown of head steel-green with a slight purplish gloss, the crown purple along the centre; lesser wing-coverts green; remainder of coverts, bastard-wing, and primary-coverts black, the median coverts edged with glossy green, the secondaries washed with purple or green under certain lights; a white patch on the primaries, the white found only on both webs of the second, third, fourth, fifth, and sixth long primaries, on the inner web only of the first, and on the outer web only of the seventh; tail black, washed with glossy green; sides of face glossy steel-green, purplish on the auricular region; throat and fore neck steel-green, with an oily-green shade on the latter and on the chest, which gradually becomes purple; rest of the under surface of body glossy green, the feathers being black, edged with green, as also the under wing-coverts and axillaries: "bill orange-yellow; legs and feet citron-yellow; lappets and cheek-spot rich yellow, the latter tinged with blue at the upper edge; iris brown, the outer edge white, darkly mottled" (*W. V. Legge*). Total length 9.5 inches, culmen 1.05, wing 5.6, tail 2.65, tarsus 1.15.

Adult female. Similar to the male. Total length 9.3 inches, culmen 1.1, wing 5.5, tail 2.5, tarsus 1.3.



Head of *Mainatus religiosus* from above, to show form of lappets.

Lappets two on the nape, running up on each side of the latter and continued on the sides of the head to the hinder part of the eye; below the eye a nearly square bare patch reaching to the

<i>b, c.</i> ♂ ad. sk.	Ratnapura, Ceylon, Feb., March (<i>H. Nevill</i>).	Tweeddale Coll.
<i>d, e.</i> ♂ ♀ ad. sk.	Avisawella, Ceylon, Dec. 14, 1865 (<i>S. Chapman</i>).	Tweeddale Coll.
<i>f, g.</i> ♂; <i>h, i, k.</i> ♀ ad. sk.	Ceylon, March, July (<i>S. Chapman</i>).	Tweeddale Coll.
<i>l, m.</i> Ad. sk.	Ceylon (<i>S. Chapman</i>).	Tweeddale Coll.
<i>n.</i> ♂ ad. sk.	Mynall, Travancore, July 6, 1874 (<i>F. Bourdillon</i>).	Hume Coll.
<i>o, p.</i> ♂ ad.; <i>q, r.</i> ♀ ad.; <i>s, t.</i> Juv. sk.	Travancore, July 1878.	F. Bourdillon, Esq. [C.].
<i>u, v.</i> ♂ ♀ ad. sk.	Lower Palani Hills, June, July, 4000 ft. (<i>S. B. Fairbank</i>).	Tweeddale Coll.
<i>w.</i> ♀ ad. sk.	Lower Palani Hills, 4000 ft. (<i>S. B. Fairbank</i>).	Hume Coll.
<i>x, y.</i> ♂; <i>z, a'.</i> ♀ ad. sk.	Kullar, Nilghiris, Sept., Oct.	Hume Coll.
<i>b'.</i> ♀ ad. sk.	Kotagherry, June 1874 (<i>Miss Cockburn</i>).	Hume Coll.
<i>c'.</i> ♀ ad. sk.	Nellacotta, Wynaad, March 29, 1881 (<i>W. Davison</i>).	Hume Coll.
<i>d'.</i> ♀ ad. sk.	Karoli, Wynaad, May 2, 1881 (<i>W. Davison</i>).	Hume Coll.
<i>e', f'.</i> ♀ ad. sk.	Peria Forests, Wynaad, April, May (<i>W. Davison</i>).	Hume Coll.
<i>g'.</i> ♂ ad. sk.	Manantoddy, Wynaad, April 2, 1881 (<i>W. Davison</i>).	Hume Coll.
<i>h'.</i> ♂ ad. sk.	Charambadi, Wynaad, April 2, 1881 (<i>W. Davison</i>).	Hume Coll.
<i>i'.</i> Ad. sk.	Mozai Valley, Wynaad.	Hume Coll.
<i>k', l'.</i> ♂ ♀ ad. sk.	Shemogah Dist., March 1875.	Hume Coll.
<i>m'.</i> Ad. sk.	Malabar.	Gould Coll.
<i>n'.</i> Juv. sk.	Malabar.	Mrs. Pink [P.].
<i>o'-q'.</i> Ad. sk.	Malabar.	Tweeddale Coll.
<i>r'.</i> ♂ ad. sk.	Cannanore, Oct. 9, 1882 (<i>R. G. W. R.</i>).	Tweeddale Coll.
<i>s'.</i> Ad. sk.	Madras (<i>Jerdon</i>).	India Museum.
<i>t'.</i> Ad. sk.	North Canara, May 4, 1877 (<i>H. E. M. James</i>).	Hume Coll.

2. *Mainatus veneratus*.

Gracula venerata, *Bp. Consp. i.* p. 422 (1850, ex *Temm. MSS. in Mus. Lugd.*); *Wall. P. Z. S.* 1863, p. 486; *Schl. N. T. D. i.* p. 4, pl. i. fig. 2 (1863).

Eulabes venerata, *Gray, Hand-l. B. ii.* p. 18, no. 6266 (1870).

Adult. Of larger size than *M. religiosus*, but distinguished by its greener coloration and by the form of the lappets, which are extremely broad, and are continued in a line on the hinder crown on each side of the nape, much as in *M. religiosus*: "lappets and bare skin on head dark yellow; iris dark" (*A. R. Wallace*). Total length 12 inches, culmen 1.6, wing 6.9, tail 3.3, tarsus 1.5.

Young. Not nearly so glossy as the adults, the feathers being dusky blackish with glossy green edgings. The lappets are very

small, and those on the sides of the occiput and nape scarcely developed.

Hab. Sumbawa and Flores.

a-c. Ad.; d, e. Juv. sk.	Flores.	Wallace Coll.
f. Ad. sk.	Flores (Wallace).	Tweeddale Coll.

3. *Mainatus javanensis*.

- Corvus javanensis*, Osbeck, *Iter*. p. 102 (1757); *id.* *Voy.* (Engl. transl.), p. 157 (1771).
Gracula religiosa (nec L.), *Rapht. Trans. Linn. Soc.* xiii. p. 303 (1820); *Gray, Gen. B.* ii. p. 330 (1845).
Eulabes javanensis, *Horsf. Trans. Linn. Soc.* xiii. p. 162 (1820).
 ? *Gracula religiosa*, *Vieill. Gal. Ois.* i. p. 144, pl. 95 (1825).
Eulabes javanus, *Cuvier, Règne Anim.* i. p. 377 (1829).
Mainatus javanus, *Less. Traité*, p. 357 (1831).
Mainatus sumatranus, *Less. Traité*, p. 357 (1831).
Gracula javanensis, *Blyth, J. A. S. Beng.* xv. p. 31 (1846); *id.* *Cat. B. Mus. As. Soc.* p. 107 (1849); *Bp. Consp.* i. p. 422 (1850); *Motley & Dillw. Nat. Hist. Labuan*, p. 25 (1855); *Schl. N. T. D.* i. p. 5, pl. i. fig. 3 (1863); *Scl. P. Z. S.* 1863, p. 219; *Salvad. Ucc. Born.* p. 274 (1874); *Sharpe, P. Z. S.* 1875, p. 107; *Tweedd. Ibis*, 1877, p. 319; *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 461 (1877); *Sharpe, Ibis*, 1879, p. 262; *id.* *P. Z. S.* 1879, p. 346; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 138 (1879); *Nichols. Ibis*, 1881, p. 153; *Kelham, t. c.* p. 520; *Nichols. Ibis*, 1882, p. 63, 1883, p. 25; *Oates, B. Brit. Burm.* i. p. 393 (1883); *Snellm. in Veth. Midden-Sumatra, Vog.* p. 43 (1844); *Büttk. Notes Leyden Mus.* ix. p. 71 (1887).
Gracula javana, *A. Hay, Madr. Journ.* xiii. pt. 2, p. 156 (1844); *Cab. Mus. Hein. Th.* i. p. 207 (1850); *Ball, Str. F.* 1874, p. 334.
Eulabes javanensis, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 524 (1856); *Moore, P. Z. S.* 1859, p. 444; *Stoliczka, J. A. S. Beng.* xxxix. p. 326 (1870); *Gray, Hand-l. B.* ii. p. 18, no. 6207 (1870); *Walden, Ibis*, 1871, p. 176; *Hume & Darison, Str. F.* vi. p. 306 (1878, pt.); *Hume, Str. F.* 1879, pp. 66, 106.

Adult. Glossy black with the following reflexions:—back purple from the hind neck; lower back, rump, and upper tail-coverts oil-green with scarcely any purple; scapulars and lesser wing-coverts

purplish on the throat, oil-green on the fore neck: reddish purple on the chest and breast and steel-green on the lower breast and abdomen, thighs and under tail-coverts the feathers of the underparts being black with broad metallic margins: under wing-coverts and axillaries black with a white patch on the primaries: "all orange-vermilion, yellow at the tip: legs and wattles sulphur-yellow" (*R. G. Wallace Jacquet*). Total length 11.5 inches, culmen 1.2, wing 6.7, tail 5.1, tarsus 1.2.

The sexes are alike in colour.

Lappets two, one on each side of the breast, edged at the base in very old birds: below the eye a narrow bare patch separated from the bare line on the side of the hind crown which joins the lappets by a band of feathers which springs from the hind part of the eye and joins the feathers of the auricular region leaving no bare yellow line in between.

Hab. From South Tenasserim to Malacca, Sumatra, Java and Borneo.

a, b. ♂ ad. et juv. sk.	S. Tenasserim Jan. Feb.	Chees Coll.
c. Juv. sk.	Tenasserim W. Luning.	Tweeddale Coll.
d. ♂ ad. sk.	Perak May 4. 1875 W. Darison.	Hume Coll.
e. ♂; f. ♀ ad. sk.	Batavia April 1861 W. Darison.	Hume Coll.
g-k ♂; l-n ♀ ad. sk.	Malacca Feb. March W. Darison.	Hume Coll.
o, p. ♂ ♀ ad. sk.	Kossong May 18. 1879 (J. Darison).	Hume Coll.
q. Ad. sk.	Province Wellesley, Dec. 1861.	Dr. A. M'Kinlay (P.).
r. Ad. sk.	Perak Feb. 11. 1861.	Dr. A. M'Kinlay (P.).
s. ♂; t-u. ♀ ad. sk.	Klang. Feb.-April Sept. W. Darison.	Hume Coll.
x, y. ♂ ♀ ad. sk.	Dang Dang River, Feb. 23. 1879 (W. Darison).	Hume Coll.
z-b'. Ad. sk.	Malacca July 1877 W. Darison.	Hume Coll.
c'. ♀ ad.; d'. e', f'. ♂ ♀ imm. sk.	Malacca Aug. 9. 1873 (R. G. W. R.).	Tweeddale Coll.
g', h'. Ad. sk.	Malacca.	Tweeddale Coll.
i. Ad. sk.	Malacca (Dr. Mainyay).	Tweeddale Coll.
k'-m'. Ad.; n'. Juv. sk.	Malacca (Dr. Cantor).	India Museum.
o', p. ♂ ♀ ad.; q'. ♀ juv. sk.	Kurao, Malacca, Nov. 1875 (W. Darison).	Hume Coll.
r'. ♂ ad.; s', t'. Juv. sk.	Nealy, Malacca, Oct. 19, 1875 (W. Darison).	Hume Coll.
u', v'. ♂; w', x'. ♀ ad. sk.	Johore, Aug. 1875 (W. Darison).	Hume Coll.
y'. ♂ ad.; z'-b'. ♀ ad. sk.	Gunnong Pulai, Johore, Aug. 1879 (W. Darison).	Hume Coll.
c'', d''. Ad. sk.	Singapore.	
e'', f''. Ad. sk.	Sumatra (<i>Raffles</i>).	India Museum.
g''-l'. Ad. sk.	Sumatra, Sept., Oct. (<i>Carl Bock</i>).	Tweeddale Coll.
m''-p''. Ad. sk.	Lamong, S.E. Sumatra (<i>E. C. Burton</i>).	Tweeddale Coll.

<i>q'</i> . Ad. sk.	Java.	India Museum.
<i>r'-t'</i> . Ad. sk.	E. Java (<i>A. R. Wallace</i>).	
<i>u'-w'</i> . Ad. sk.	Borneo.	
<i>x'</i> . Ad. sk.	Sarawak.	Wallace Coll.
<i>y'</i> . ♂ ad. sk.	Busan (<i>A. Everett</i>).	Tweeddale Coll.
<i>z'</i> , <i>a</i> . Ad. sk.	Labuan (<i>J. Motley</i>).	Tweeddale Coll.
<i>β</i> . Ad. sk.	Labuan (<i>H. Liso</i>).	R. B. Sharpe, Esq. [P.]

Subsp. *α*. *Mainatus palawanensis*.

Gracula javanensis (*nec Osbeck*), *Sharpe, Trans. Linn. Soc. new ser.* i. p. 344 (1876); *Tweedd. P. Z. S.* 1878, p. 622; *Sharpe, Ibis*, 1884, p. 321; *Blasius, Ornith.*, 1888, p. 315.

Eulabea javanensis, *Sharpe, Ibis*, 1888, p. 202.

Adult female. Similar to *M. javanensis* but smaller, and blacker underneath, with very little reddish purple on the breast; especially distinguished by the green shade on the lores and sides of the crown: "bill reddish orange; wattles orange-yellow; legs yellow; iris deep brown" (*A. H. Everett*). Total length 10 inches, culmen 1.15, wing 6.1, tail 2.9, tarsus 1.35.

Young. Similar to the adult but duller, with less gloss and smaller lappets: "bill fine deep orange; wattles and legs chrome-yellow" (*A. H. Everett*).

Hab. Palawan.

<i>a, b</i> . Ad. sk.]	Palawan.	Everard Lempriere, Esq. [P.]
<i>c</i> . ♂ ad.; <i>d</i> . Ad. sk.	Palawan.	Professor Steere [C.]
<i>e</i> . ♀ ad. sk.	Puerto Princessa, Palawan, Dec. 3, 1877 (<i>A. H. Everett</i>).	Tweeddale Coll.
<i>f</i> . ♂ imm. sk.	Puerto Princessa, Palawan, Jan. 1878 (<i>A. H. Everett</i>).	Tweeddale Coll.
<i>g</i> . Ad. sk.	Inagawan, Jan. 1878 (<i>A. H. Everett</i>).	Tweeddale Coll.

4. *Mainatus intermedius*†.

† *Mainatus* dus. Indes. (the title). Month. Hist. Nat. Océanie, 1844.

- Passeres*, pl. 269. fig. 1 (no. 302); *id.* in *Gray's Zool. Misc.* p. 84 (1844); *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 103 (1846).
Maina religiosa (*nec L.*), *Hodgs. J. A. S. Beng.* v. p. 771 (1846).
Gracula indicus, *A. Hay, Madr. Journ.* xiii. pt. ii. p. 157 (1844).
Gracula intermedia, *A. Hay, Madr. Journ.* xiii. pt. ii. p. 157 (1844); *Blyth, Cat. B. Mus. As. Soc.* p. 107 (1849); *Bp. Consp.* i. p. 422 (1850); *Cab. Mus. Hein. Th.* i. p. 207 (1850); *Irby, Ibis*, 1861, p. 230; *Schl. Nederl. Tijdschr.* i. p. 6, pl. i. fig. 4 (1863); *Schomb. Ibis*, 1864, p. 255; *Blanf. Ibis*, 1870, p. 469; *Oates, B. Brit. Burm.* i. p. 301 (1883); *Salrad. Ann. Mus. Circ. Genov.* (2) iv. p. 607 (1887); *id. Ann. Mus. Circ. Genov.* (2) v. p. 616 (1888).
Gracula javanensis (*nec Osbeck*), *Blyth, J. A. S. Beng.* xv. p. 300 (1846).
Eulabes intermedia, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 523 (1856); *Jerd. B. Ind.* ii. p. 339 (1863); *Blyth, Ibis*, 1867, p. 40; *Godwin-Austen, J. A. S. Beng.* xxxix. p. 110 (1870); *Gray, Hand-l. B.* ii. p. 18, no. 6265 (1870); *Ball, Str. F.* 1875, p. 203, 1877, p. 417; *Blyth & Wald. B. Burm.* p. 89 (1875); *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Ball, Str. F.* vii. p. 222 (1878); *Oates, Str. F.* 1887, p. 230.
Eulabes javanensis, *Hume, Nests & Eggs Ind. B.* p. 436 (1873, pt.); *id. Str. F.* 1874, p. 480; *id. Str. F.* 1875, p. 152; *Armstr. Str. F.* 1876, p. 335; *Bingham, Str. F.* 1877, p. 86; *Hume & Davison, Str. F.* vi. pp. 306, 520 (1878, pt.); *Hume, Str. F.* 1879, p. 106; *Bingham, Str. F.* 1880, p. 192; *Hume, Str. F.* xi. p. 268 (1888).
Eulabes javanus, *Hume, Str. F.* 1877, p. 38.

Adult male. Similar to *M. javanensis*, but much smaller, and distinguished by the form of the little patch of feathers which extends from the hinder part of the eye. This is triangular in shape, and never reaches to the auricular feathers, leaving always a distinct line of bare skin: "bill coral-red, yellow at the tip: inside of mouth fleshy; eyelids well feathered; naked skin in general deep yellow, more or less tinged with orange on the face, and purer and varying in colour on the lappets, the uppermost corner of the lappet near the eye tinged with blue; legs, feet, and claws yellow:

MAINATUS SINENSIS.

- Eulabes sinensis*, *Swinh. Ibis*, 1870, p. 353; *id. P. Z. S.* 1871, p. 383; *David & Oust. Ois. Chine*, p. 365 (1877).

Described from a living specimen. No type was preserved, and the species is very doubtfully distinct from *M. intermedius*.

Hab. South-western China (Western Kwangtung, Kwangse, and so forth) (*Swinhoe, l. c.*).

MAINATUS HAINANUS.

- Eulabes hainanus*, *Swinh. Ibis*, 1870, p. 352; *id. P. Z. S.* 1871, p. 384; *David & Oustalet, Ois. Chine*, p. 366 (1877).

"Similar to *E. sinensis*, but having the subocular fleshy skin narrow, 0.25 inch, lengthened downwards and not square. I examined several of the Chinese form, and they all agreed in having it square-shaped. On this peculiarity I venture to separate the Hainan race; for my single specimen was left in charge of a friend, in whose hands it died, and, notwithstanding all my careful instructions, it was thrown away." (*R. Swinhoe, l. c.*)

Hab. Hainan.

iris brown" (*E. W. Oates*). Total length 11 inches, culmen 1.1, wing 6.3, tail 2.95, tarsus 1.2.

Adult female. Similar to the male in colour. Total length 10.5 inches, culmen 1.05, wing 6.3, tail 3, tarsus 1.2.

Hab. Central India; Himalayas from Kumaon to Assam, the Burmese countries to Tenasserim and the northern part of the Malay Peninsula, eastwards to Cochin China, and probably South China and Hainan.

<i>a-g.</i> ♂ ♀ ad. sk.	Sumbalpur, Jan., Dec.	Hume Coll.
<i>h.</i> Ad. sk.	Kumaon (<i>Strachey</i>).	India Museum.
<i>i.</i> Ad.; <i>k.</i> Imm. sk.	Kumaon.	Hume Coll.
<i>l-p.</i> Ad. sk.	Nepal (<i>B. H. Hodgson</i>).	
<i>q.</i> Ad. sk.	Sikhim, April 1873 (<i>L. Mandelli</i>).	Hume Coll.
<i>r-t.</i> Ad. sk.	Darjeeling.	Hume Coll.
<i>u.</i> Ad. sk.	Darjeeling Terai, Feb. 1874 (<i>L. Mandelli</i>).	Hume Coll.
<i>v-d.</i> Ad. sk.	Bhotan Doars, Jan., Feb., Nov. (<i>L. Mandelli</i>).	Hume Coll.
<i>e.</i> Ad. sk.	Assam (<i>A. W. Chennell</i>).	Tweeddale Coll.
<i>f.</i> ♂ ad.; <i>g', h'.</i> ♂ ♀ juv. sk.	N. Khasia Hills, March 1876 (<i>A. W. Chennell</i>).	Tweeddale Coll.
<i>i.</i> ♂ ad. sk.	Near Shillong, Dec. 15, 1877 (<i>W. Davison</i>).	Hume Coll.
<i>k', l.</i> ♂ ♀ ad. sk.	Sadhya, June 1877 (<i>J. Cockburn</i>).	Hume Coll.
<i>m.</i> ♂; <i>n', o.</i> ♀ ad. sk.	Khowang, Dibrughur, March, Aug. (<i>J. R. Cripps</i>).	Hume Coll.
<i>p.</i> ♂ ad. sk.	Joonkotollee, Dibrughur, April 5, 1880 (<i>J. R. Cripps</i>).	Hume Coll.
<i>q.</i> Imm. sk.	Cachar.	Hume Coll.
<i>r.</i> ♂ ad. sk.	Noong-zai-ban, Manipur, Feb. 2, 1881 (<i>A. O. H.</i>).	Hume Coll.
<i>s.</i> Ad. sk.	Tipperah.	Hume Coll.
<i>t.</i> ♂ ad. sk.	Eastern Pegu Hills, April 14, 1873 (<i>E. W. Oates</i>).	Hume Coll.
<i>u.</i> Ad. sk.	Arakan Hills, Jan. 1872 (<i>E. W. Oates</i>).	Hume Coll.
<i>v.</i> Ad. sk.	Pegu (<i>W. T. Blanford</i>).	Tweeddale Coll.
<i>w.</i> ♂ imm. sk.	Siam, Jan. 11, 1876 (<i>L. Mandelli</i>).	Hume Coll.

$p'-u'$, \varnothing : $w'-s'$. Ξ ad. sk.	Kanikatta, May-June, J. Dar- ling.	Hume Coll.
y' , \varnothing ad. sk.	Kanaka, Thungayen River, Oct. 6, 1873, C. F. Stephens.	Hume Coll.
x' , α , \varnothing ad. sk.	Pattadak, March 1874, W. Davison.	Hume Coll.
β , \varnothing ad. sk.	Hongkayen River, Feb. 27, 1877, (W. Davison).	Tweeddale Coll.
γ , Ξ ad. sk.	Araun, March 2, 1877, (W. Davison).	Hume Coll.
δ , ϵ , \varnothing ad. sk.	Mynadec, Jan. 1877, (W. Davison).	Hume Coll.
ζ , η , \varnothing ad. sk.	Yumban, Dec. 1878, (J. Dar- ling).	Hume Coll.
θ , ι , \varnothing ad. sk.	Meyan, Feb. 1877, (W. Dar- son).	Hume Coll.
κ , λ , \varnothing ad.: μ , \varnothing imm. sk.	Amherst, Jan-March, (W. Davison).	Hume Coll.
ν , \varnothing ad. sk.	Lemyne, March 28, 1874, (W. Davison).	Hume Coll.
ξ , \varnothing ad. sk.	Meeta Myo, April 19, 1874 (W. Davison).	Hume Coll.
α , \varnothing ad. sk.	Tavey, April 13, 1878, (W. Davison).	Hume Coll.
π , \varnothing ad. sk.	N'walaboo, April 10, 1878 (W. Davison).	Hume Coll.
ρ , \varnothing ad.; σ , Ad. sk.	Pakchan, Jan. 1875, (W. Dar- son).	Hume Coll.
τ , \varnothing imm. sk.	Bankasoon, Dec. 22, 1875, (W. Davison).	Hume Coll.
υ , ϕ , \varnothing ad. sk.	Malewoon, Jan., Feb. (W. Davison).	Hume Coll.
χ - ω , \varnothing \varnothing ad. sk.	S. Tenasserim, Jan., Feb., Dec.	Oates Coll.
α' , \varnothing ad. sk.	Pulo Condul, April 20, 1876.	Hume Coll.
β' , \varnothing ad. sk.	Siam.	Tweeddale Coll.
γ' , Imm. sk.	Cambodia.	Mons. E. Pierre [P.].
δ' , Imm. sk.	Cambodia (<i>Mouhot</i>).	Tweeddale Coll.
ϵ' , ζ , η' , Ad. sk.	Cochin China.	Mons. E. Pierre [P.].
θ' , \varnothing ; ι' , κ' , \varnothing ad. sk.	Kossoum, April, May (J. Darling).	Hume Coll.
λ' , \varnothing ad. sk.	Klang, Feb. 25, 1879, (W. Davison).	Hume Coll.
μ' , \varnothing ad. sk.	Malacca, Aug. 9, 1873 (R. G. W. R.).	Tweeddale Coll.
ν' , Ad. sk.	Singapore.	Hume Coll.

Subsp. *a.* **Mainatus andamanensis.**

Gracula javanica (*nec auct.*), *Blyth, Ibis*, 1859, p. 465.
Gracula intermedia (*nec Hay*), *Blyth, Ibis*, 1863, p. 221.
Gracula javana, *Pelz. Reis. Novara, Vog.* p. 88 (1865).
Eulabes andamanensis, *Beavan, Ibis*, 1867, p. 331 (*ex Tytler MSS.*);
Walden, l. c., note; *Ball, J. A. S. Beng.* xxxix. pt. 2, p. 242
(1870); *Gray, Hand-l. B.* ii. p. 18, no. 6271 (1870); *Walden,*
Ibis, 1871, p. 177, 1873, p. 313.

Eulabes javanensis (pt.), *Hume, Nests*, p. 436 (1873); *id. Str. F.* 1874, p. 254.

Eulabes intermedia (*nec Hay*), *Ball, Str. F.* 1873, p. 77.

M. andamanensis is scarcely to be separated from *M. intermedius*, of which it is a stout-billed race. The stoutness of the bill is, however, equalled by several of the Himalayan specimens of *M. intermedius*, and it is impossible to draw a line of distinction between them. The only other character is in the number of white-spotted quills, which varies from six to nine, and one specimen has twelve with white spots; so that it would be difficult to separate this specimen from *M. robustus*, judging from the description of the latter bird.

Mr. Hume gives an excellent note on the Andaman and Nicobar birds in 'Stray Feathers' (1874, p. 256). The sexes do not differ in size. "Length 11·5 to 13·5 inches; wing 6 to 7·25, tail 3·1 to 4·0, tarsus 1·12-1·55. Legs and feet yellow, varying from pale to dull chrome-yellow; bills varying from orange to coral-red, but always pale yellow at the tip; lappets gamboge-yellow to light orange; iris deep brown" (*Hume, l. c.*).

Hab. Andaman and Nicobar Islands.

a. ♂ ad. sk.	Andamans (Tytler).	Oates Coll.
b. ♂ ad. sk.	Andamans, June 1865 (<i>R. C. Beavan</i>).	Tweeddale Coll. (Type of species.)
c, d. ♂ ad.; e. ♀ ad.; f. ♀ imm.; g, h. Juv. sk.	S. Andamans, Jan. 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
i, k, l. ♂ ♀ ad. sk.	S. Andamans, March, April 1873 (<i>R. G. W. R.</i>).	Tweeddale Coll.
m, n. ♂ ♀ ad. sk.	S. Andamans, Aug., Sept. 1873 (<i>R. J. Wimberley</i>).	Hume Coll.
o, p. ♂ ♀ ad.; q. Imm. sk.	Jolly Boys Island, Macpherson Straits, March 8, 1873 (<i>V. Ball</i>).	Hume Coll.
r. ♀ ad. sk.	Port Mouat, April 15, 1873 (<i>W. Davison</i>).	Hume Coll.
s-w. ♂ ad. sk.	Mt. Harriet, March, Dec. (<i>W. Davison</i>).	Hume Coll.
x ♂ ♀ ad. sk.	Port Blair, Aug., Sept. 1873	Hume Coll.

Lappets *two*, one on each side of the occiput; no bare patches on the side of the face. The lappets are said by Colonel Legge to meet at the base in old birds.

Adult female. Similar to the male in colour: "iris white or yellowish white" (*W. V. Legge*). Total length 10 inches, culmen 1.1, wing 6, tail 2.55, tarsus 1.4.

The white marking on the primaries does not vary much. Occasionally there is an appearance of a small mark of white on the outer web as well as on the inner one of the first long primary, and usually six primaries only are marked with white. Sometimes, however, the seventh shows a small white mark on the outer web; and in one specimen in the Tweeddale collection there is considerable amount of white on *both* webs.

Young. "Birds of the year have the iris quite brown, bill with more black about the base, and not so long as in the adult; lappets smaller and widely separated at the base; lower parts faintly edged with greyish. In this stage they breed.

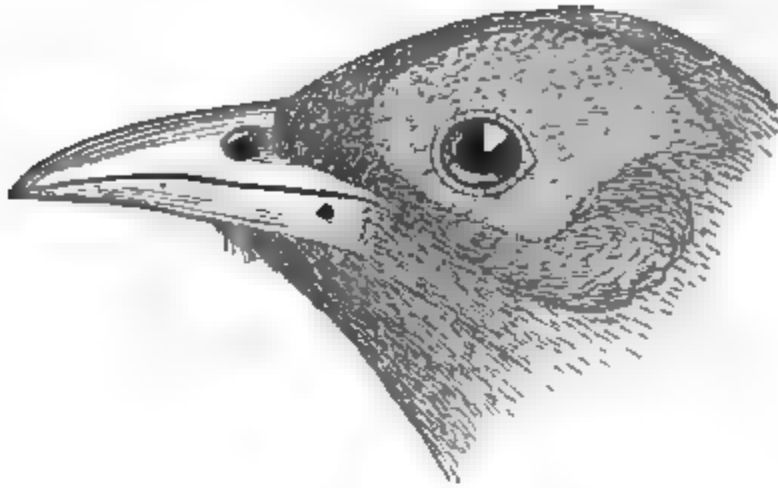
"I record the colour of the iris in the adult female as *white*, because I have found it so in all specimens I have shot; I believe Mr. Bligh has observed the same to be the case. Whether the eye of the male becomes white with age I am unable to say; I have always found greyish or brown tints in it, and they are usually in the form of dots or stipplings. The fact of the eye in the young bird being brown augurs strongly in favour of a change eventually to the same colour in both sexes; and it may be that I have not succeeded in getting a fully-aged male." (*Legge*.)

Hab. Confined to Ceylon.

a. Ad. sk.	Ceylon.	Hume Coll.
b, c. ♂ ♀ ad. sk.	Singha-Rajah Forest, S. Ceylon, Aug. 20, 1872 (<i>W. V. Legge</i>).	
d. ♀ ad. sk.	Avisawella, Ceylon, Dec. 17, 1876 (<i>W. V. Legge</i>).	R. B. Sharpe, Esq. [P.].
e, f. Ad.; g. ♀ ad. sk.	Pusiawella, Ceylon, Dec. 16, 1865 (<i>S. Chapman</i>).	Tweeddale Coll.
h-r. ♂ ♀ ad. sk.	Ambegamwa, Ceylon, Feb, March 1873 (<i>H. Nevill</i>).	Tweeddale Coll.
s, t. ♂ ♀ ad. sk.	Gallagelara, Ceylon, Feb. 1872	Tweeddale Coll.

14. MINO.

Mino, Lesson, *Voy. Coquille*, Zool. i. p. 651 (1826) M. dumonti. Type.



Head of *Mino dumonti*, to show bare face.

Range. New Guinea and adjacent islands to the Southern group.

Key to the Species.

- a. Black feathers on throat running to a point on the chin; vent yellow as well as the lower abdomen . . *dumonti*, p. 111.
- b. Black feathers on throat rounded; lower abdomen and vent white like the under tail-coverts *kreffti*, p. 112.

1. *Mino dumonti*.

Mino dumonti, Less. *Voy. Coquille*, Zool. i. p. 652, pl. 25 (1826); *Kuttl. Kupf. Vög.* p. 9, Taf. xiii. fig. 1 (1833); *Salvad. Ann. Mus. Civic. Genov.* vii. p. 778 (1875), viii. p. 402 (1876), ix. p. 30 (1876), x. p. 150 (1877); *Salvad. P. Z. S.* 1878, p. 98; *D'Albert. & Salvad. Ann. Mus. Civic. Genov.* xiv. p. 93 (1879); *Salvad. op. cit.* xvi. p. 195; *id. Orn. Papuasia etc.* ii. p. 466 (1881); *id. Rep. Voy. H.M.S. 'Challenger,'* ii. *Birds*, p. 81 (1881).

Mainatus dumonti, Lesson in *Férussac*, *Bull.* x. p. 159 (1827).

Gymnops dumonti, Cuvier, *Règne Anim.* i. p. 381 (1820).

Gracula dumonti, Wagler, *Isis*, 1820, p. 747; *Müller & Schl. Verh. Land- u. Volk.* p. 22 (1839-44); *Gray, Gen. B.* ii. p. 330 (1845); *Bp. Consp.* i. p. 422 (1850); *Scl. Proc. Linn. Soc.* ii. p. 164 (1858); *Gray, P. Z. S.* 1858, pp. 182, 194, 1859, p. 158; *id. Cat. B. New Guinea*, pp. 38, 59 (1859); *id. P. Z. S.* 1861, p. 436; *Schl. Nederl. Tijdschr.* i. p. 8, pl. i. fig. 8 (1863); *Rosenb. J. f. O.* 1864, p. 131; *Finsch, New-Guinea*, p. 174 (1865); *Gray, Hand-l. B.* ii. p. 18, no. 6272 (1870); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 392 (1876).

Eulabea dumonti, Sharpe, *Journ. Linn. Soc.* xiii. p. 82 (1876), p. 318 (1877), p. 501 (1877), xiv. p. 687 (1879); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. pp. 107, 279 (1878), iv. p. 99 (1879).

Adult male. Black with green reflexions, slightly varied with a purplish shade; lower rump and upper tail-coverts white; lesser wing-coverts like the back, the median and greater coverts edged with glossy green; bastard-wing, primary-coverts, and quills black, the inner secondaries glossed with green externally; the first six

long primaries marked with a white patch, the first only on the inner web and the sixth only on the outer one; tail black; centre of crown and neck all round greenish black, the feathers being loose and bristly; sides of crown and entire region of the eye and greater part of auricular region bare, the texture of the skin being bristly; lores black, as well as a broad line of feathers running to the sides of the neck and occupying the lower ear-coverts; fore part of cheeks bare; hinder cheeks and sides of neck greenish black, with a few hair-like white plumelets; chin and sides of upper throat bare; centre of throat and fore neck greenish black, slightly glossed with purple; breast, sides of body, flanks, and thighs black glossed with green, the feathers being edged with the latter colour; entire abdomen bright yellow; under tail-coverts white; axillaries and under wing-coverts black with glossy green edges; quills black below, with a white patch on the primaries: "bill, feet, and eyes yellow" (*D'Albertis*). Total length 10 inches, culmen 1.1, wing 6, tail 2.95, tarsus 1.4.

Adult female. Similar to the male. Total length 10 inches, culmen 1.25, wing 5.9, tail 2.7, tarsus 1.45.

Young. Differ from the adult in wanting the papillæ on the bare part of the face and in having the abdomen paler yellow.

Hab. New Guinea, Salawatti, Waigiou, and Aru Islands.

<i>a.</i> ♀ ad. sk.	Waigiou.	Wallace Coll.
<i>b-d.</i> ♂ ♀ ad. sk.	Salawati, July, Aug. 1868 (<i>Von Rosenberg</i>).	
<i>e.</i> ♂ ad.; <i>f.</i> Ad. sk.	Dorey.	Wallace Coll.
<i>g.</i> Ad. sk.	Dorey (<i>A. R. Wallace</i>).	Gould Coll.
<i>h, i.</i> ♂ ♀ ad. sk.	Aru Islands.	Voy. of H.M.S. 'Challenger.'
<i>k, l.</i> ♂ ♀ ad.; <i>m.</i> Ad. sk.	Aru Islands.	Wallace Coll.
<i>n.</i> Ad. sk.	Port Moresby.	Rev. S. McFarlane [P.].
<i>o.</i> Ad. sk.	Port Moresby.	K. Broadbent [C.].

2. *Mino krefftii*.

Gracula krefftii, *Sel. P. Z. S.* 1890, p. 120, pl. ix.; *Bonap.*, *P. Z. S.*



cheeks extended over the base of the bill, which is not bare as in *M. dumonti*. The abdomen is not of so brilliant a yellow as in the latter species, and the lower abdomen is white: "bill and bare space round eye clear orange-yellow, as also the bare skin angle; feet duller orange-yellow; iris fiery orange" (*Finsch*). Total length 10·5 inches, culmen 1·35, wing 6·5, tail 3·5, tarsus 1·5.

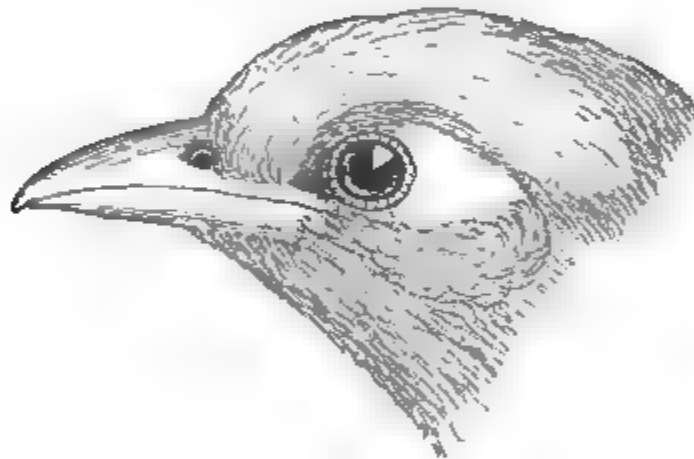
The sexes are alike in colour, according to Dr. Finsch.

Hab. Solomon Islands, New Britain, New Ireland, and New Hanover.

a. Ad. sk.	Solomon Islands.	P. L. Sclater, Esq. [P.] (Type of species.) Tweeddale Coll.
b. Ad. sk.	Elizabeth Island, Solomons, Sept. 10, 1885 (<i>J. Brenchley</i>).	
c. Ad. sk.	Fauro Island, Solomons.	C. M. Woodford, Esq. [C.]
d. Ad. sk.	New Ireland.	Sir C. Lemon [P.]
e-g. Ad. sk.	New Ireland (<i>G. Brown</i>).	Tweeddale Coll.

15. MELANOPYRRHUS.

Melanopyrrhus, *Bp. C. R.* xxxvii. p. 831 (1853) Type.
M. anais.



Head of *Melanopyrrhus anais*.

Range. Confined to New Guinea and Salawati.

Key to the Species.

- a. Head black; round the neck a broad yellow collar. . . *anais*, p. 113.
- b. Head golden yellow like the hind neck, generally
with a black nape-spot *orientalis*, p. 114.

1. *Melanopyrrhus anais*.

Sericulus anais, *Less. Rev. Zool.* 1854, p. 44; *Bp. Consp.* i. p. 349 (1850); *id. C. R.* xxxvii. p. 831 (1853); *Scl. P. Z. S.* 1857, p. 6; *Gray, P. Z. S.* 1858, p. 192, 1861, p. 434; *Rosenh. Nat. Tijdschr. Nederl. Ind.* xxv. p. 234 (1863); *id. J. f. O.* 1864, p. 121.

Oriolus? *anais*, *Gray, Gen. B., App.* p. ii (1849); *id. Cat. B. New Guinea*, pp. 26, 57 (1859).

Pastor nigrocinctus, Cass. *Proc. Philad. Acad.* 1850, p. 68: *Scl. P. Z. S.* 1857, p. 6.

Melanopyrrhus anais, Bp. *C. R.* xxxvii. p. 831 (1853); *id. Notes Coll. Delattre*, p. 9 (1854); *Scl. P. Z. S.* 1857, p. 6; *id. Journ. Linn. Soc.* ii. p. 159 (1858); *Salvad. Ann. Mus. (Civ. Genov.* x. p. 150 (1877), xvi. p. 195 (1880); *id. Orn. Papuasias etc.* ii. p. 462 (1881); *Guillem. P. Z. S.* 1885, p. 644; *Sharpe in Gould's B. New Guinea*, iv. pl. 16 (1886).

Gracula pectoralis, Wall. *P. Z. S.* 1862, p. 169, pl. xx.; *Scl. Ibis*, 1863, p. 225; *Finsch, New-Guinea*, p. 174 (1865).

Gracula (Melanopyrrhus) anais, Gray, *Ann. & Mag. Nat. Hist.* (3) x. p. 473 (1852).

Gracula anais, Wall. *Ann. & Mag. Nat. Hist.* (3) xi. p. 15 (1863); *Schl. Mus. Pays-Bas, Coraces*, p. 98 (1867); *id. Nederl. Tijdschr. Dierk.* iv. p. 18 (1871); *Scl. P. Z. S.* 1873, p. 607; *Rosenb. Malay. Arch.* p. 554 (1879).

Eulabes anais, Gray, *Hand-l. B.* ii. p. 19, no. 6276 (1870).

Adult male. General colour above black with a green gloss, very slightly varied with purple; lesser wing-coverts like the back; median and greater coverts black, edged with glossy green; bastard-wing, primary-coverts, quills, and tail-feathers black, with a slight greenish wash externally; seven long primaries marked with white, the first and seventh only on the inner web; lower back, rump, and upper tail-coverts deep orange-yellow; crown of head, lores, sides of face, ear-coverts, cheeks, and throat glossy greenish black; round the hind neck a broad yellow collar, extending on each side of the occiput; lower throat, fore neck, and breast orange-yellow; lower breast, abdomen, and thighs black, edged with glossy green; lower flanks, lower abdomen, and vent orange-yellow; the under tail-coverts white; under wing-coverts, axillaries, and under surface of quills black; bill and feet pale yellow; iris yellow. Total length 9.5 inches, culmen 0.95, wing 5.4, tail 2.8, tarsus 1.3.

Young. Duller black than the adults, the feathers being black with glossy green margins; wing and tail entirely black, except for the large white patch on the primaries; sides of neck and a broad collar round the hind neck pale yellow with a tinge of orange; sides of face and throat black with scarcely any gloss; remainder of under surface of body black, with broad yellow edges.

Hab. North-western New Guinea; Salawati.

<i>a-d.</i> ♂ ♀ ad. sk.	Salawati, June, July 1868 (Von Rosenberg).	Salvin-Godman and Tweeddale Colls.
<i>e.</i> Ad. sk.	New Guinea.	Wallace Coll. (Type of <i>Gracula pectoralis</i> .)
<i>f.</i> Ad.; <i>g.</i> Juv. sk.	New Guinea.	Wallace Coll.

2. *Melanopyrrhus orientalis*.

Gracula anais, Schlegel, *Nederl. Tijdschr. Dierk.* iv. p. 18 (1871, *nec Less.*).

Gracula anais orientalis, Schlegel, *Nederl. Tijdschr. Dierk.* iv. p. 52 (1881); *Rosenb. Reis. naar Geelvinkbai*, p. 140 (1875).

Gracula orientalis, Beccari, *Ann. Mus. (Civ. Genov.* vii. p. 714

- (1875); Ramsay, *Proc. Linn. Soc. New South Wales*, iv. p. 90 (1879).
Gracula rosenbergii, Finsch in *Brehm's 'Gefangene Vögel,'* ii. p. 502 (1876).
Melanopyrrhus orientalis, *Salvad. Ann. Mus. Civic. Genov.* viii. p. 401 (1876), x. pp. 12, 20, note (1877); *D'Albert. & Salvad. op. cit.* xiv. p. 90 (1879); *Salvad. op. cit.* xvi. p. 195 (1880); *id. Orn. Papuasie e delle Molucche*, ii. p. 403 (1881); *Guillemard, Proc. Zool. Soc.* 1885, p. 644; *Sharpe in Gould's Birds of New Guinea*, iv. pl. 17 (1886).
Mina robertsonii, *D'Albert. Ann. Mus. Civic. Genov.* x. pp. 12, 20 (1877); *id. Ibis*, 1877, p. 308.
Gracula affinis, *Rosenb. Malay. Arch.* pp. 554, 590 (1879).
Eulabes orientalis Ramsay, *Proc. Linn. Soc. N. S. Wales*, iii. p. 279 (1879).
Melanopyrrhus robertsonii, *Sharpe, Journ. Linn. Soc., Zool.* xiv. pp. 633, 637 (1879).

Adult. Similar to *M. anais*, but with more of an oily-green gloss, especially on the throat; the orange colour everywhere deeper and more brilliant; the entire head brilliant orange, with a patch of greenish black on the nape; ear-coverts greenish black with a few yellow feathers intermixed: "bill and feet pale yellow; iris yellow" (*D'Albertis*). Total length 10 inches, culmen 0.9, wing 5.8, tail 2.95, tarsus 1.35.

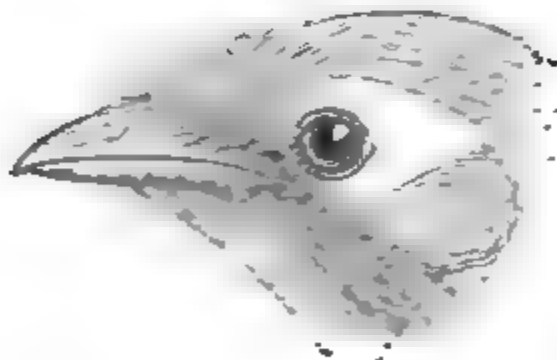
Young. Similar to the adults but the orange paler, and mottled with blackish bases to the feathers of the fore neck; many of the greenish-black feathers of the breast tipped with yellowish margins.

Hab. New Guinea.

- | | | |
|-------------|---|------------------|
| a. Ad. sk. | N.W. New Guinea (<i>Dr. A. B. Meyer</i>). | Gould Coll. |
| b. Imm. sk. | Port Moresby, S.E. New Guinea. | K. Bradford [C.] |

16. AMPELICEPS.

Ampeliceps, *Blyth, J. A. S. Beng.* xi. p. 194 (1842). . . . *A. coronatus*. Type.



Head of Ampeliceps coronatus.

Rang. Cochin China to Cochin. and north to Burmah and Tenasserim.

1. *Ampeliceps coronatus*.

Ampeliceps coronatus, *Blyth, J. A. S. Beng.* xi p. 194 (1842), xii. p. 985 (1843), xv. p. 32 (1846); *id. Cat. B. Mus. As. Soc.* p. 108 (1849); *Bp. Consp.* i. p. 422 (1850), *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 525 (1856); *Verr. P. Z. S.* 1868, p. 622; *Hume, Nest & Eggs Ind. B.* p. 436 (1872); *id. Str. F.* 1874, p. 480; *Armstr. Str. F.* 1876, p. 335; *Blyth & Wulden, B. Burm.* p. 89 (1875); *Hume & Davison, Str. F.* vi. p. 398 (1878); *Hume, Str. F.* viii. 1879, p. 106; *id. Str. F.* ix. p. 256 (1880); *Oates, Str. F.* x. 1882, p. 231; *id. B. Brit. Burm.* i. p. 395 (1883); *Salvad. Ann. Mus. Civic. Genov.* (2) v. p. 615 (1888); *Hume, Str. F.* xi. p. 209 (1888).

Gracula coronata, *Gray & Mitch. Gen. B.* ii. p. 330, pl. 81 (1845).

Eulabee coronata, *Gray, Hand-l. B.* ii. p. 18, no. 6274 (1870).

Adult female. Greenish black, purplish on the hind neck and sides of neck and lesser wing-coverts; remainder of wing-coverts and quills black, externally steel glossed with steel-green or purplish, the primaries with a large patch of yellow, extending over the seven long primaries, but confined to the inner web of the first and the outer web of the seventh; the mark on the outer web rather bright yellow, but whiter on the inner web; crown of head bright yellow, the sides of the crown, nape, lores, sides of face, cheeks, and ear-coverts purplish black, like the sides of the neck; throat yellow; remainder of under surface of body from the lower throat downwards greenish black, rather glossed with purple on the fore neck; the feathers of the abdomen, flanks, thighs, and under tail coverts rather more dusky and edged with glossy green; axillaries and under wing-coverts black; quills black below, with a large yellow patch on the primaries: "bill pale orange, turning to blue at the gape, mouth livid; ophthalmic skin yellow, tinged with orange; legs dull orange; claws dark horn; iris dark brown" (*E. W. Oates*): "bill dull greenish, tipped and margined with yellow; legs and feet bright ochreish yellow; claws dark brown; iris dark brown" (*J. Armstrong*). Total length 7 inches, culmen 0.8, wing 5.1, tail 2.3, tarsus 0.95.

Adult male. Similar to the female, but distinguished by the whole of the lores and fore part of cheeks being yellow: "bill yellow, tinged slightly with green at the gape, and base of lower mandible bluish green; legs and feet pinkish chrome-yellow; iris very dark brown" (*W. Davison*). Total length 9.2 inches, wing 5.2, culmen 0.75, tail 2.3, tarsus 1.

Young. With the greater part of the head blue-black, as well as the sides of the face and sides of throat, leaving the centre of the throat yellow, and the crown more or less mixed with yellow plumes.

Hab. The same as that of the genus.

a. Ad. sk.	Cachar.	Hume Coll.
b. ♂ ad. sk.	China Ba-keer, Dec. 17. 1875 (<i>J. Armstrong</i>).	Hume Coll.
c, c'. Ad. sk.	Tonghoo.	Tweeddale Coll.
d. Ad. sk.	Tonghoo.	Oates Coll.
e ♂ ad. sk.	Lower Pegu, Jan. 20, 1879.	Oates Coll.

edged with dusky brown, producing a mottled appearance; scapulars like the back; lower back, rump, and upper tail-coverts more uniform brown, the latter reddish brown; wing-coverts greenish black, hoary grey at the ends, which are edged with dusky blackish; bastard-wing, primary-coverts, and quills black, externally glossed with steel-green, all but the second primary white at the base, the secondaries externally hoary grey towards the base of the outer web, the inner ones brown with ashy edges; tail feathers brown, with an ashy shade on the margins, the two outer ones reddish on the inner web; crown of head hoary grey, mottled with greenish-black edges to the feathers, especially distinct on the nape and hind neck; forehead less distinctly mottled; lores and feathers at base of nostrils, feathers round sides of face, ear-coverts, and cheeks black; throat deep chestnut, sides of neck like the hind neck; lower throat, fore neck, and breast cinnamon-rufous or light bay; abdomen white, a few of the upper feathers with rufous centres; sides of body and flanks cinnamon-rufous; thighs ashy brown with whitish margins; under tail-coverts dull cinnamon, broadly edged with white; under wing-coverts and axillaries pale cinnamon, edged with white, the edge of the wing greenish black; the greater lower coverts blackish; quills below black, with a white patch at the base of the primaries: "bill dusky black, reddish black at base of lower mandible; upper and lower mandibles margined with pale yellow; legs, feet, and claws black; iris dull white" (*J. Armstrong*). Total length 7 inches, culmen 0.75, wing 4.1, tail 2.4, tarsus 0.8.

Specimens from the North-western Himalayas are rather paler than those from Assam and British Burmah, but the transition in depth of colour is perfectly gradual, and complete links from one form to the other are exhibited in the series in the British Museum.

Adult female. Different from the male. General colour above dusky brown, slightly mottled with grey centres to the feathers of the head and back; lower back and rump more uniform, the upper tail-coverts rather more reddish brown; lesser wing- and median coverts brown, with a subterminal bar of hoary grey; greater coverts brown, with a broader grey band before the tip; bastard-wing and primary-coverts blackish brown; quills black, edged with bronzy green, the primaries white at the base, the inner secondaries brown like the back, the outer ones with the same patch of fibrous grey near the base of the outer web as in the males; tail-feathers dark brown, with a slight rufous tint below; crown of head like the back; lores and feathers round the eye blackish; ear-coverts blackish brown like the sides of the neck; cheeks and under surface of body dull white, here and there washed with rufous; throat, breast, sides of body, and flanks mottled with brown centres to the feathers; abdomen and under tail-coverts white; thighs dark brown; under wing-coverts white, centred and edged with brown, those near the edge of the wing uniform dark brown; axillaries white, brown at the base; quills below dusky brown, with a large

white patch at the base of the primaries: "bill black, dusky yellow at gape; legs, feet, and claws black; iris white" (*J. Armstrong*). Total length 7·75 inches, culmen 0·8, wing 4·05, tail 2·2, tarsus 0·8.

Hab. The same as that of the genus.

a, b. ♂ ad. sk.	Dhurmsala, Cashmere, May (<i>W. E. Brooks</i>).	Hume Coll.
c. ♀ ad. sk.	Simla.	Hume Coll.
d. ♂ ad. sk.	Gurwhal.	Hume Coll.
e, f. ♂ ad. sk.	Masuri (<i>S. Pinnell</i>).	Tweeddale Coll.
g, h. ♂ ♀ ad. sk.	Sansoo, May 29, 1874 (<i>W. E. Brooks</i>).	Hume Coll.
i. ♂ ad. sk.	Tanda, Kumaon Bhabur, March 25, 1871 (<i>G. King</i>).	Hume Coll.
k, l. ♂ ad.; m. ♀ ad. sk.	Kumaon.	Hume Coll.
n. ♀ ad. sk.	Naini Tal (<i>S. Pinnell</i>).	Tweeddale Coll.
o, p. ♂ ad.; q. ♀ ad. sk.	Naini Tal.	Pinnell Coll.
r. ♂ ad. sk.	Naini Tal, Oct. 1866 (<i>R. Thompson</i>).	Hume Coll.
s, t. ♂ ad.; u. ♀ ad. sk.	Dehra Doon.	Hume Coll.
v. ♂ ad. sk.	Kalei, April 22, 1868 (<i>G. F. L. Marshall</i>).	Hume Coll.
w, x. ♂ ad.; y. ♀ ad. sk.	Nepal.	Hodgson Coll.
z, a'. ♂ ♀ ad. sk.	Nepal (<i>B. H. Hodgson</i>).	India Museum.
b', c'. ♂ ad.; d', e', f'. ♀ ad. sk.	Darjeeling Terai, March 1875 (<i>L. Mandelli</i>).	Hume Coll.
g'. ♀ ad. sk.	Mouphoo, Darjeeling.	Hume Coll.
h', i'. ♂ ♀ ad. sk.	Futtegaur District, June 2, 1875 (<i>A. Anderson</i>).	Nicolson Coll.
k', l'. ♂ ad.; m'. ♀ ad. sk.	Doon.	Hume Coll.
n', o', p'. ♂ ad. sk.	Dibrugarh, Dec. 1875 (<i>J. R. Cripps</i>).	Hume Coll.
q'. ♂ ad. sk.	Assam (<i>McClelland</i>).	India Museum.
r', s'. ♂ ♀ ad. sk.	Assam (<i>A. W. Chenail</i>).	Tweeddale Coll.
t', u'. ♂ ♀ ad. sk.	N. Kinnia Hill, March 1876 (<i>A. W. Chenail</i>).	Tweeddale Coll.
v. u'. ♂ ad. sk.	N. Kinnia Hill, Dec. 1876 (<i>A. W. Chenail</i>).	Tweeddale Coll.
x'. ♂ ad. sk.	Cachar.	Hume Coll.
y, z, a. ♂ ad.; b. ♀ ad. sk.	Karai Hill, Jan. 1875 (<i>R. G. W. E.</i>).	Tweeddale Coll.
γ, δ, ε. ♀ ad. sk.	Tongpoo, Feb. 1875 (<i>R. G. W. E.</i>).	Tweeddale Coll.
ζ. ♂ ad. sk.	Tongpoo (<i>R. G. W. E.</i>).	Tweeddale Coll.
η, θ. ♂ ♀ ad. sk.	Lapinang, Jan. 1875 (<i>J. Armstrong</i>).	Hume Coll.
i. ♂ ad. sk.	Tachoo Hill, Dec. 1875.	India Museum.

18. HARTLAUBIUS.

Type.

Hartlaubius, Bp. C. R. xxxvii. p. 830 (1853) . . *H. madagascariensis*.*Range*. Confined to Madagascar.1. *Hartlaubius madagascariensis*.*Le Merle de Madagascar*, Briss. Orn. in. p. 274, pl. 25. fig. 1 (1760);
Daubent. Pl. Enl. iv. pl. 557. fig. 1.*Le Tamaombe*, Montb. Hist. Nat. Ois. iii. p. 386 (1775).*Turdus auratus*, P. L. S. Mull. Syst. Nat. Suppl. p. 140 (1776);
Cassin, Proc. Philad. Acad. 1864, p. 249.*Madagascar Thrush*, Luth. Gen. Syn. ii. pt. i. p. 68 (1783).*Turdus madagascariensis*, Bodd. Tabl. Pl. Enl. p. 32 (1783); Gm.
Syst. Nat. i. p. 823 (1788).*Turdus madagascarius*, Hermann, Tabl. Affin. Anim. p. 210 (1783).*Acridotheres gracilirostris*, Drap. Dict. Class. vii. p. 152 (1841).*Saroglossa madagascariensis*, Gray, Gen. B. ii. p. 328 (1846); Bp.
Consp. i. p. 418 (1850); J. W. con Mull. J. f. O. 1855, p. 459.*Hartlaubius madagascariensis*, Bp. C. R. xxxvii. p. 831 (1853); Hartl.
J. f. O. 1860, p. 104; id. Beitr. Faun. Madag. p. 52 (1861); Roch
& E. Newt. *Ibis*, 1862, p. 275; Sel. P. Z. S. 1863, p. 163; E.
Newt. *Ibis*, 1863, p. 349; Ferr. in Vinson's Voy. Madag., Ann. B.
p. 2 (1865); A. Newt. P. Z. S. 1865, p. 830; Schl. P. Z. S. 1866,
p. 423; Grand. Rev. et Mag. de Zool. 1867, p. 357; Schl. & Poll.
Faun. Madag. p. 105 (1868); Sharpe, P. Z. S. 1870, p. 300, id.
Cat. Afr. B. p. 56 (1871); Hartl. Voy. Madag. p. 207 (1877);
Milne-Edwards & Grandid. H. N. Madag., Ois. p. 311, pls. cxv.,
cxiii. n, cxvi. (1879).*Saroglossa aurata*, Gray, Hand-l. B. ii. p. 28, no. 6397 (1870).

Adult male. General colour above chocolate-brown, with a slight greenish bronzy gloss; scapulars like the back, with a little more green gloss; rump and upper tail-coverts greenish black, glossed with purple, wing-coverts brown, glossed externally with bronzy olive-green, especially distinct on the greater coverts; bastard-wing purplish black, the outer web white; primary-coverts and quills purplish black, externally purple, green on the inner secondaries, the primaries black at base and pure white for nearly the whole of the outer web; tail feathers black, externally steel-green, the two centre ones entirely greenish black, the two outer ones white along the outer web; crown of head, sides of face, ear-coverts, cheeks, throat, and fore neck darker chocolate-brown than the back; sides of neck, chest, breast, sides of body, and flanks lighter and more earthy brown, somewhat varied with whitish edges to the feathers; abdomen, thighs, sides of vent, and under tail-coverts white; under wing-coverts and axillaries pure white, quills below blackish, white along the inner edge: "bill and feet black; iris brown" (*Grandidier*). Total length 7.5 inches, culmen 0.8, wing 4.2, tail 3, tarsus 0.8.

Adult female. Much lighter brown than the male, the gloss on the wings and tail not so distinct and much greener; the under surface of the body much lighter brown, the thighs and under tail-

mouths marked with pale brown lines to the nostrils. Total length 7.5 inches. Taper 1.5. Wing 4.5. Tail 3.5. Axons 1.5.

Loc. Madagascar.

1. 1. 1.	Madagascar	1. 1. 1.
2. 2. 2.	Madagascar	2. 2. 2.
3. 3. 3.	Madagascar	3. 3. 3.
4. 4. 4.	Madagascar	4. 4. 4.
5. 5. 5.	Madagascar	5. 5. 5.
6. 6. 6.	Madagascar	6. 6. 6.
7. 7. 7.	Madagascar	7. 7. 7.
8. 8. 8.	Madagascar	8. 8. 8.
9. 9. 9.	Madagascar	9. 9. 9.
10. 10. 10.	Madagascar	10. 10. 10.

PHOLIDACTES

1. 1. 1. 2. 2. 2. 3. 3. 3. 4. 4. 4. 5. 5. 5. 6. 6. 6. 7. 7. 7. 8. 8. 8. 9. 9. 9. 10. 10. 10.



1. 1. 1. 2. 2. 2. 3. 3. 3. 4. 4. 4. 5. 5. 5. 6. 6. 6. 7. 7. 7. 8. 8. 8. 9. 9. 9. 10. 10. 10.

1. 1. 1. 2. 2. 2. 3. 3. 3. 4. 4. 4. 5. 5. 5. 6. 6. 6. 7. 7. 7. 8. 8. 8. 9. 9. 9. 10. 10. 10.

PHOLIDACTES

1. 1. 1. 2. 2. 2. 3. 3. 3. 4. 4. 4. 5. 5. 5. 6. 6. 6. 7. 7. 7. 8. 8. 8. 9. 9. 9. 10. 10. 10.

329 (1863); *Heugl. J. f. O.* 1863, p. 23, 1864, p. 257, 1869, p. 10; *Sharpe, Ibis*, 1869, p. 60; *Heugl. Orn. N.O.-Afr.* i Abth. 2, p. 521 (1870); *Finsch, Trans. Z. S.* vii. p. 257 (1870); *id. & Hartl Vog. Ostaf.* p. 377 (1870); *Sharpe, Cat. Afr. B.* p. 54 (1871); *Shelley & Buckley, Ibis*, 1872, p. 288; *Antin. & Salvad. Viagg. Bogos*, p. 124 (1873); *Ussher, Ibis*, 1874, p. 65; *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 76 (1874); *Sharpe, P. Z. S.* 1874, p. 306; *Reichen. J. f. O.* 1875, p. 37; *Nichols. P. Z. S.* 1876, p. 130; *Salvin, Cat. Strickl. Coll.* p. 276 (1882); *Hartert, J. f. O.* 1886, p. 586; *Salvad. Ann. Mus. Civic. Genov.* (2) vi. p. 208 (1888).

Grandala leucogastra, *Blanf. Geol. & Zool. Abyss.* p. 367 (1870).

Adult male. General colour above metallic puce-colour, ranging from violet to purple reflexions, according to the light; wing-coverts like the back; bastard-wing and primary-coverts blackish, the latter with puce-coloured margins; quills blackish, the secondaries puce-colour externally, the innermost entirely of that colour; centre tail-feathers puce-coloured, the remainder blackish, puce-coloured externally; head and throat as well as the chest puce-coloured; lores blackish; remainder of under surface of body from the breast downwards pure white; thighs white, with dusky bases; under tail-coverts white; under wing-coverts and axillaries blackish, washed with puce-colour or purple on the edges; quills below blackish: "bill and feet black; iris brown, with a beautiful yellow ring" (*Hartert*). Total length 6.6 inches, culmen 0.6, wing 4, tail 2, tarsus 0.8.

The full colour of the adult plumage seems to be puce or purplish violet which fades to a reddish purple. The new feathers are more purplish violet.

Adult female. Different from the male. General colour above nearly uniform dark brown, with pale rufescent or whitish edges to the feathers of the head and back; wing-coverts and quills dark brown, with similar light margins; the inner webs for the most part rufous, tail-feathers brown; lores, sides of face, and ear-coverts dark brown; cheeks white, streaked with brown; throat white; remainder of under surface of body white; the lower throat, fore neck, and breast distinctly spotted with triangular brown marks, smaller and rounder on the lower breast and sides of vent, more longitudinal on the sides of body, which are washed with brown; thighs and under tail-coverts white; under wing-coverts and axillaries brown with rufous edges; quills below pale rufous, brown on the outer web and for the terminal third of the inner one. Total length 7 inches, culmen 0.6, wing 3.9, tail 2.25, tarsus 0.8.

Some ornithologists have contended that in North-eastern Africa the adult female becomes metallic like the male. This experience has been controverted by other travellers. It seems to me most unlikely that the female should become metallic, as no tendency to go beyond the brown plumage exhibits itself in South-African *P. verreauxi*, and yet in three specimens from Abyssinia, two of which are sexed as females by Mr. Jesse, there are a few metallic purple feathers. It is at any rate a curious fact, as is also the way

in which the purple plumage is assumed, partly by a direct moult, and partly by a change of feather.

Hab. West Africa and North-eastern Africa.

| | | |
|---|---|----------------------------|
| <i>a, b.</i> ♂ ♀ ad. st. | West Africa. | Col. Sabine [P.]. |
| <i>c.</i> ♂ ad.; <i>d, e.</i> ♀ ad. sk. | River Gambia. | Sharpe Coll. |
| <i>f, g.</i> ♂ ♀ ad. sk. | Ashantee. | J. Gould, Esq. |
| <i>h, i, k.</i> ♂ ad. sk. | Fantee. | Sharpe Coll. |
| <i>l, m, n, o, p.</i> ♂ ad. et juv.; <i>q, r.</i> ♀ ad. sk. | Fantee (<i>Kirby</i>). | Shelley Coll. |
| <i>s.</i> ♂ ad. sk. | Denkera (<i>H. T. Ussher</i>). | Shelley Coll. |
| <i>t.</i> ♀ ad. sk. | Abokobi, Aguapim (<i>G. E. S.</i>). | Shelley Coll. |
| <i>u.</i> ♂ juv. sk. | Connor's Hill, Cape Coast, Nov. 25, 1870 (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>v.</i> ♀ ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>w.</i> ♂ ad. sk. | Abeokuta. | F. Nicholson, Esq. [P.]. |
| <i>x.</i> ♀ ad. sk. | Semmio, Niam Niam, May 1883. | F. Bohndorff [C.]. |
| <i>y.</i> ♂ ad. sk. | Sassa, Nov. 1882. | F. Bohndorff [C.]. |
| <i>z, a'.</i> ♂ ♀ ad. sk. | Mensa, Bogos Land (<i>Eslar</i>). | Sharpe Coll. |
| <i>b', c'.</i> ♂ ad. sk. | Bogos (<i>Eslar</i>). | Shelley Coll. |
| <i>d'.</i> ♀ ad. sk. | Rairo, Aug. 15, 1868 (<i>W. Jesse</i>). | Sharpe Coll. |
| <i>e'.</i> ♀ ad. sk. | Abyssinia (<i>Col. Sturt</i>). | Hume Coll. |
| <i>f'.</i> ♂ ad. sk. | Undel Wells, May 27, 1868 (<i>W. Jesse</i>). | Tweeddale Coll. |
| <i>g', h'.</i> ♂ ♀ ad. sk. | Undel Wells, May 30, 1868. | W. T. Blanford, Esq. [C.]. |
| <i>i'.</i> ♂ ad. sk. | Undel Wells, May 29, 1868 (<i>W. Jesse</i>). | Salvin-Godman Coll. |
| <i>k'.</i> ♀ ad. sk. | Sooroo, May 29, 1868 (<i>W. J.</i>). | Salvin-Godman Coll. |
| <i>l'.</i> ♀ ad. sk. | Senafé, April 4, 1868 (<i>W. J.</i>). | Tweeddale Coll. |
| <i>m'.</i> ♂ ad. sk. | Senafe, April 14 (<i>W. J.</i>). | Shelley Coll. |

2. *Pholidauges verreauxi*.

Pholidauges leucogaster (*nec Gm.*), *Gurney, Ibis*, 1862, p. 20; *id. P. Z. S.* 1864, p. 3; *Anderss. t. c.* p. 6; *Bocage, Journ. Lisb.* 1868, p. 4; *Ayres, Ibis*, 1886, p. 288.

Juida leucogaster, *Layard, B. S. Afr.* p. 174 (1867); *Sperling, Ibis*, 1868, p. 290.

Lamprotornis leucogaster, *Chapm. Trav. S. Afr.* ii. App. p. 404 (1868).

Pholidauges verreauxi, *Bocage in Finsch & Hartl. Vög. Ost-Afr.* p. 867 (1870); *Sharpe, Cat. Afr. B.* p. 54 (1871); *id. P. Z. S.* 1873, p. 714; *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 74 (1874); *Buckley, Ibis*, 1874, p. 378; *Shelley, Ibis*, 1875, p. 78; *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 47 (1876); *Reichen. J. f. O.* 1872, p. 26; *Bocage, Orn. Angola*, p. 314, pl. 5 (1877-81); *Nicholson, P. Z. S.* 1878, p. 357; *Cab. J. f. O.* 1878, p. 233; *Fischer & Reichen. t. c.* p. 261; *Shelley, P. Z. S.* 1881, p. 583; *Gurney, Ibis*, 1881, p. 127; *Shelley, Ibis*, 1882, p. 205; *Fischer, Zeitschr. ges. Orn.* i. p. 335 (1884); *Ayres, Ibis*, 1884, p. 228; *Fischer, J. f. O.* 1885, p. 132; *Souza, Journ. Lisb.* 1887, p. 50; *Reichen. J. f. O.* 1887, pp. 66, 305; *Shelley, Ibis*, 1888, p. 303.

Juida bocagei, Gray, *Hand-l. B.* ii. p. 25, no. 6349 (1870).
Olinnyricinclus leucogaster (nec Gm.), Gurney in *Anderss. B. Dam.-*
Ld. p. 156 (1872).

Adult male. Similar to *P. leucogaster*, but always recognizable by the white outer web of the external tail-feather: "bill black; legs brownish; toes the same but darker; iris light chrome-yellow" (*C. J. Andersson*). Total length 6·6 inches, culmen 0·65, wing 4·05, tail 2·4, tarsus 0·9.

The fully adult males have a brilliant subterminal metallic shade on the feathers of the back.

Adult female. Similar to the female of *P. leucogaster*, but with rather more rufous on the head. Total length 6·7 inches, culmen 0·65, wing 4, tail 2·15, tarsus 0·8.

Hab. South Africa, eastwards as far north as the Zanzibar district, and westwards as far north as the Congo.

| | | |
|--|---|--------------------------------------|
| <i>a, b, c.</i> ♂ ad. sk. | Natal (<i>Ayres, Gorge</i>). | Shelley Coll. |
| <i>d.</i> ♀ ad. sk. | Pinetown, Natal, Dec. 16
(<i>T. L. Ayres</i>). | H. Seebohm, Esq. [P.]. |
| <i>e.</i> ♂ imm. sk. | Pinetown, May 7 (<i>T. L.</i>
<i>Ayres</i>). | Shelley Coll. |
| <i>f, g.</i> ♂ ♀ ad. sk. | Orange Free State. | A. Sharpe, Esq. [P.]. |
| <i>h.</i> ♂ juv. sk. | Rustenberg, Transvaal,
Nov. 18, 1883 (<i>T. Ayres</i>). | R. B. Sharpe, Esq. [P.]. |
| <i>i.</i> ♂ ad.; <i>k.</i> ♂
juv. sk. | Rustenberg. | F. Barratt, Esq. [P.]. |
| <i>l.</i> ♂ ad. sk. | Gooqui River, Baman-
gwato, Oct. 16 (<i>T. E.</i>
<i>Buckley</i>). | Shelley Coll. |
| <i>m, n.</i> ♂ ♀ ad. sk. | Near Ovungu River, Oct.
and Nov. (<i>F. Oates</i>). | C. G. & W. E. Oates,
Esqrs. [P.]. |
| <i>o.</i> ♂ juv. sk. | Tete, Zambesi. | Sir J. Kirk [C.]. |
| <i>p.</i> ♂ ad. sk. | Damara Land. | C. J. Andersson [C.]. |
| <i>q.</i> ♂ ad.; <i>r.</i>
♂ juv. sk. | Damara Land, Jan. 12,
1867 (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>s.</i> ♂ ad. sk. | Elephant Vley, Damara
Land, Nov. 16, 1859
(<i>C. J. Andersson</i>). | Tweeddale Coll. |
| <i>t.</i> ♀ ad. sk. | Ondonga, Dec. 28, 1866 | Tweeddale Coll. |

| | | |
|------------------------------|-------------------------------|---------------|
| i'. ♂ ad. sk. | Dar-es-Salaam (E. C. Burton). | Shelley Coll. |
| k'. ♀ ad. sk. | Usambara Hills (Sir J. Kirk). | Shelley Coll. |
| l. ♂ ad. sk. | Lamo (Sir J. Kirk). | Shelley Coll. |
| m', n'. ♂; o', p'. ♀ ad. sk. | Melinda (Sir J. Kirk). | Shelley Coll. |
| q', r'. ♂; s', t'. ♀ ad. sk. | Mamboio (Sir J. Kirk). | Shelley Coll. |

3. *Pholidanges bicolor*.

Speculipastor bicolor, *Reichen. Orn. Centralbl.* 1879, p. 108; *Fisch. & Reichen. J. f. O.* 1879, p. 349, pl. i. figs. 2, 3.

Pholidanges bicolor, *Shelley, Ibis*, 1885, p. 411.

Adult. General colour above glossy purplish black; wing-coverts like the back; quills and tail-feathers black, externally purplish black, ribbed with dusky cross bars under certain lights; primaries white at the base, forming a large speculum; head all round, throat and fore neck glossy purplish black; remainder of under surface of body, including the under wing-coverts and base of quills, creamy white; edge of wing and bastard-quill black: "bill and feet black; iris orange" (*Dr. Fischer*). Total length 8 inches, culmen 0.7, wing 4.55, tail 3, tarsus 1.05. (*Mus. E. Lort Phillips*.)

Hab. Eastern Africa.

20. APLONIS.*

| | |
|---|------------------------|
| | Type. |
| <i>Aplonis</i> , <i>Gould, P. Z. S.</i> 1836, p. 73 | <i>A. tabuensis</i> . |
| <i>Sturnoides</i> , <i>Jacq. et Pucher. Voy. Pôle Sud</i> , iii. p. 82 (1853) | <i>A. atrifuscus</i> . |

Range. Islands of the Pacific Ocean; Norfolk and Lord Howe's Islands; New Caledonia; New Hebrides and Loyalty Islands; Ponapé.

* It is doubtful whether *Aplonis* can be considered more than a subgenus of *Calornis*, and the only character of any worth appears to be the square tail. The majority of the species of *Aplonis* appear to differ in the shape of the bill, but closer examination shows that, although there may be degrees of stoutness, yet the shape of the bill is much the same in both genera. I have adopted the shape of the tail as the only character for separating the two genera: but some of the species of *Calornis* approach *Aplonis* in this respect, while it seems hardly natural to divorce *Aplonis cantoroides* from the rest of the members of *Calornis*. *Sturnoides* appears to me to be a thorough *Aplonis*, and *Lamprocorax* is only a subgenus of *Calornis*, though one might keep it distinct for the sake of convenience.

APLONIS AUSTRALIS.

Turdus australis, *Sparrm. Mus. Carol.* ii. pl. 69 (1786); *Sander. Crit. Sparrm.* p. 11 (1857).

Aplonis australis, *Gray, Hand-l. B.* ii. p. 26, no. 7361 (1870).

This name is now adopted for a New-Zealand Flycatcher, *Miro australis*, but, as Professor Sundevall pointed out (*l. c.*), the description does not suit at all well. [See *Buller, B. New Zealand*, 2nd ed. i. p. 33.]

- e*¹. Brown ; darker on the head and neck,
which have a bronzy-greenish gloss *.
- e*². Larger : wing 5·3 inches *atrifusca*, p. 134.
- f*³. Smaller : wing 4·2 inches *inornata*, p. 135.
- f*⁴. Blackish, with a slight green gloss,
especially on the head and neck ; greyer
below *kittlitzii*, p. 136.
- b*. Quills externally bright rufous *rufipennis*, p. 137.

1. *Aplonis striata*.

- Blue-striped Roller, *Lath. Gen. Syn.* i. p. 414, pl. xvi. (1781) †.
- Coracias striata*, *Gm. Syst. Nat.* i. p. 381 (1788) ; *Wagler, Syst. Av.*,
Coracias, *Obs.* sp. 3 (1827).
- Lanius striatus*, *Wagler, l. c.* (1827).
- Lamprotornis obscurus*, *Du Bus, Bull. Acad. Roy. Brux.* 1839, pt. i.
p. 97 ; *id. Esq. Orn.* livr. 3, pl. 12 (1847).
- Lamprotornis nigroviridis*, *Less. Echo du Monde Savant*, 1844, p. 81.
- Coracias pacifica*, *Forster, Descr. Anim.* p. 261 (1844).
- Aplonis obscurus*, *Gray, Voy. 'Erebus' & 'Terror,' Zool.* p. 8 (1846) ;
id. Gen. B. ii. p. 328 (1846) ; *id. P. Z. S.* 1859, p. 163, note ; *id.*
Ibis, 1862, p. 227 ; *Finsch, J. f. O.* 1867, p. 322, 1870, p. 325,
1872, p. 278 ; *Gray, Hand-l. B.* ii. p. 26, no. 6372 (1870).
- Aplonis nigroviridis*, *Bp. Consp.* i. p. 417 ; *Gray, P. Z. S.* 1859,
p. 163, note ; *Buller, B. New Zealand*, 2nd ed. i. p. 25 (1887).
- Aplonis caledonicus*, *Bp. teste Verr. et Des Murs, Rev. et Mag. de*
Zool. 1860, p. 433 ; *Marie, Actes Linn. Soc. Bordeaux*, xxvii.
p. 327 (1870) ; *Gray, Hand-l. B.* ii. p. 26, no. 6369 (1870) ;
Hutton, Cat. N. Zeal. B. pp. 17, 75 (1871) ; *E. L. & L. C. Layard,*
Ibis, 1882, p. 519 ; *Buller, B. New Zeal.* 2nd ed. i. p. 25 (1887).
- Aplonis striatus*, *Gray, P. Z. S.* 1859, p. 163 ; *Verr. et Des Murs,*
Rev. et Mag. de Zool. 1860, p. 433 ; *Marie, Actes Soc. Linn. Bor-*
deaux, xxvii. p. 327 (1870) ; *Gray, Hand-l. B.* ii. p. 26, no. 6365
(1870) ; *E. L. & L. C. Layard, Ibis*, 1878, p. 257.
- Aplonis viridigrisea*, *Gray, P. Z. S.* 1859, p. 164 ; *Verr. et Des Murs,*
Rev. et Mag. de Zool. 1860, p. 433 ; *Marie, Actes Soc. Linn. Bor-*
deaux, xxvii. p. 327 (1870) ; *Gray, Hand-l. B.* ii. p. 26, no. 6366
(1870).
- Calornis striata*, *Finsch, Journ. Mus. Godeffr.* Heft xii. p. 33 (1876).

Adult male. Black, with a purplish or steel-blue gloss ; wing-coverts like the back ; quills and tail-feathers black, with a green gloss externally ; head all round more bronzy green than the back, with a slight purplish gloss ; remainder of under surface of body

* Somewhere here, in this section, must come *Aplonis pelzelni*, a species as yet unknown to me.

† As Wagler has very properly noticed, Latham does not give any hint as to the origin of his figures. As a matter of fact they are copies of Forster's original sketches, and the striped appearance is merely from the draughtsman's rough efforts to indicate metallic gloss. The name *striata* is so well known that it seems wrong to substitute *caledonica* for it, especially as there is no doubt that it belongs to the New Caledonian bird, but it is singularly inapplicable to the species, and *caledonica* would be much the best name.

black, with a distinct steel-green wash; under wing-coverts black, washed with green on the edges; quills blackish below, browner along the inner web; "bill black; feet and legs purplish black, with whitish on the soles; iris deep red-orange" (*L. C. Layard*). Total length 7·6 inches, culmen 0·75, wing 4·1, tail 2·75, tarsus 1.

Adult female. Grey, with a greenish shade; below grey, the lower abdomen greyish white; under tail-coverts uniform light grey; wing-coverts and quills blackish, externally greenish grey. Total length 7·2 inches, culmen 0·75, wing 4, tail 2·6, tarsus 0·9.

Hab. New Caledonia.

| | | |
|-------------------|---|--|
| a. Ad. st. | New Caledonia. | Purchased. |
| b, c. ♂ ad. sk. | New Caledonia. | Purchased. |
| d. Ad. sk. | New Caledonia, March 2, 1858. | J. McGillivray [C.]. |
| e. ♀ ad. sk. | Port de France, New Caledonia, May 14, 1858. | J. McGillivray [C.].
(Type of <i>A. viridigrisea</i> .) |
| f. Ad. sk. | Port de France, June 25, 1858. | J. McGillivray, Esq.
[C.]. |
| g, h. ♂ ♀ ad. sk. | MarPoint, New Caledonia, Aug. 10, 1880 (<i>E. L. Layard</i>). | Tweeddale Coll. |
| i. ♂ ad. sk. | Dembra, New Caledonia, Dec. 29, 1879 (<i>E. L. Layard</i>). | Tweeddale Coll. |
| k. ♂ ad. sk. | Noumea, July 5, 1876 (<i>E. L. Layard</i>). | Tweeddale Coll. |
| l. ♂ ad. sk. | Isle of Pines, Oct. 10, 1853 (<i>J. McGillivray</i>). | Gould Coll. |

2. *Aplonis atronitens*.

Aplonis atronitens, Gray, *P. Z. S.* 1859, p. 164; *id.* *Hand-l. B.* ii. p. 26, no. 6307 (1870); *E. L. & L. C. Layard*, *Ibis*, 1880, p. 229; *Buller, B. New Zealand*, 2nd ed. i. p. 25 (1887).

Aplonis caledonica (*nec Bp.*), *Tristr. Ibis*, 1879, p. 184.

Adult. Similar to *A. striata*, but larger: "bill and legs black; iris orange" (*L. C. Layard*). Total length 8 inches, culmen 0·8, wing 4·6, tail 2·55, tarsus 1·1.

Mr. Layard is quite right in supposing (*Ibis*, 1880, p. 229) that Gray's type of *A. atronitens* is immature. He states also that young males resemble the old females until the first moult.

Hab. Loyalty Islands.

| | | |
|--------------|--------------------|---|
| a. Juv. sk. | Loyalty Islands. | Sir G. Grey [P.].
(Type of species.) |
| b. ♂ ad. sk. | [Loyalty Islands.] | Tweeddale Coll. |

3. *Aplonis cantoroides*.

Lamprotornis cantor, Mull. *Verh. Land- en Volkenk.* p. 22 (1839-44).
Calornis cantoroides, Gray, *P. Z. S.* 1861, pp. 431, 436; *Wall, P. Z. S.* 1862, p. 343; Gray, *Hand-l. B.* ii. p. 26, no. 6379 (1870);
Wald. Trans. Z. S. viii. p. 80 (1874); *Sharpe, Ibis*, 1876, p. 47;
Salvad. Ann. Mus. Civic. Genov. ix. p. 38 (1876), x. p. 150 (1877);
Sharpe, Journ. Linn. Soc., Zool. xiii. p. 501 (1877); *Salvad. Atti R. Accad. Torino*, xiii. p. 321 (1878); *Rosenb. Malay. Arch.* p. 395

- (1879); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 279 (1879), iv. pp. 76, 99 (1879); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 194 (1880); *id. Ibis*, 1880, p. 126; *id. Orn. Papuasia etc.* ii. p. 456 (1881); *Tristr. Ibis*, 1882, p. 137; *Meyer, Sitz. Abhandl. Gesellsch. 'Isis,'* 1884, Abth. i. p. 48; *Finsch, Vög. der Süd-See*, p. 14 (1884); *Grant, P. Z. S.* 1887, p. 331.
- Lamprotornis cantoroides*, *Finsch, Neu-Guinea*, p. 174 (1865).
- Calornis cantor*, *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 393 (1876); *L. C. Layard, Ibis*, 1880, p. 295.
- Calornis*, sp. incog., *Scl. P. Z. S.* 1877, p. 554.
- Calornis solomonensis*, *Ramsay, Nature*, xx. p. 125 (1879); *Salvad. Ibis*, 1880, p. 126.

Adult male (type of species). General colour dull glossy steel-green, the wing-coverts like the back; greater coverts, bastard-wing, primary-coverts, quills, and tail-feathers black, externally dull steel-green; sides of face and entire under surface of body dull steel-green, slightly more oil-green on the throat and somewhat ashy on the sides of body and flanks: "bill and feet black; iris scarlet" (*G. E. Richards*). Total length 7·8 inches, culmen 0·8, wing 4, tail 2·6, tarsus 0·9.

Hab. New Guinea, Salawati, Mysol, Batanta, Louisiade and Admiralty groups of islands, New Britain, Duke of York Island, Solomon Islands.

| | | |
|------------------------------------|---|--|
| <i>a, b. ♂ ad. sk.</i> | Mysol. | Wallace Coll.
(Types of the species.) |
| <i>c, d. Ad. ; e-h. Imm. sk.</i> | Mysol. | Wallace Coll. |
| <i>i. Imm. sk.</i> | Mysol (<i>Wallace</i>). | Tweeddale Coll. |
| <i>k. Ad. sk.</i> | Astrolabe Mts., New Guinea. | C. Hunstein [C.]. |
| <i>l. Ad. sk.</i> | Louisade Archipelago (<i>J. Macgillivray</i>). | Gould Coll. |
| <i>m, n. ♀ ad. ; o. ♀ juv. sk.</i> | Blanche Bay, New Britain,
June 16, 1875 (<i>G. E. Richards</i>). | Tweeddale Coll. |
| <i>p. ♀ ad. ; q. ♂ juv. sk.</i> | New Britain, Nov. 1880. | Dr. Kleinschmidt [C.]. |
| <i>r. ♀ ad. sk.</i> | Admiralty Islands. | Voy. of H.M.S. 'Challenger.' |
| <i>s. ♀ ad. sk.</i> | Alu, Solomon Islands. | C. M. Woodford,
Esq. [P.]. |
| <i>t. ♂ ad. sk.</i> | Rubiana, March 8. | C. M. Woodford,
Esq. [P.]. |

4. *Aplonis feadensis*.

- Calornis (Aplonis) feadensis*, *Ramsay, Journ. Linn. Soc., Zool.* xvi. p. 129 (1881); *Reichen. & Schalow, Journ. für Orn.* 1882, p. 227.
- Calornis feadensis*, *Salvad. Ann. Mus. Civic. Genov.* xviii. p. 426 (1882); *id. Orn. Papuasia e delle Molucche*, iii. App. p. 550 (1882); *Sharpe, in Gould's Birds of New Guinea*, iv. pl. 14 (1886).

Adult (type of species). Entirely sooty, with here and there a shade of steel-green; wing-coverts, quills, and tail-feathers dusky black, externally washed with steel-green; entire head and under

surface of body sooty black, with scarcely any indication of a greenish gloss. Total length 7 inches, culmen 0·85, wing 4·45, tail 2·4, tarsus 1·05. (*Mus. Austr.*)

Hab. Fead Island.

5. *Aplonis tabuensis*.

Tabuan Shrike, *Lath. Gen. Syn.* i. p. 164 (1781).

Lanius tabuensis, *Gm. Syst. Nat.* i. p. 306 (1788).

Aplonis marginata, *Gould, P. Z. S.* 1803, p. 73; *Gray, Gen. B.* ii. p. 328 (1846); *Cass. U. S. Expl. Exped., Birds*, p. 125, pl. vii. fig. 1 (1858).

Lamprolornis fusca, *Peale, U. S. Expl. Exped., Birds*, p. 110 (1848).

Aplonis marginalis, *Hartl. Arch. Naturg.* 1852, pp. 103, 132.

Aplonis tabuensis, *Gray, P. Z. S.* 1859, p. 163, note; *id. Cat. B. Tropical Isl. Pacific Ocean*, p. 26 (1860); *Finsch & Hartl. P. Z. S.* 1860, p. 549; *Gray, Hand-l. B.* ii. p. 26, no. 6303 (1870); *Cab. & Reichen. J. f. O.* 1876, p. 322; *Layard, P. Z. S.* 1876, p. 400; *Finsch, P. Z. S.* 1877, pp. 725, 774; *id. t. c.* p. 783; *id. Rep. Voy. 'Challenger,'* p. 37 (1881); *Buller, B. N. Zeal.* 2nd ed. i. p. 25 (1887).

Adult male. General colour above brown, the feathers indistinctly glossed on the margins with oily green; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish, washed with glossy steel-green on the outer webs; the secondaries browner, the outer ones rather broadly edged with whity brown; tail-feathers brown, with a slight green gloss on the outer web; head, nape and hind neck, sides of neck, sides of face, and ear-coverts glossy oil-green with a slight purplish shade; cheeks, throat, and under surface of body ashy brown, rather more ochreous brown on the abdomen and under tail-coverts; the fore neck and breast mesially streaked with white; flanks and thighs brown; under wing-coverts and axillaries yellowish white; quills dusky below, ashy brown along the inner web: "iris dark red" (*J. Murray*). Total length 8 inches, culmen 0·85, wing 4·5, tail 2·7, tarsus 1·15.

Adult female. Similar in colour to the male. Total length 8 inches, culmen 0·85, wing 4·4, tail 2·6, tarsus 1·15.

Hab. Tonga Islands, Pacific Ocean.

Aplonis brevirostris, *Cass. U. S. Expl. Exped.* p. 126, pl. vii. fig. 2 (1858); *Gray, P. Z. S.* 1859, p. 163, note; *id. Cat. B. Trop. Isl. Pacific Ocean*, p. 27 (1859); *Finsch & Hartl. Faun. Centralpolyn.* p. 105, Taf. 10. fig. 3 (1867); *Gray, Hand-l. B.* ii. p. 26, no. 6370 (1870); *Whitmee, Ibis*, 1875, p. 440; *Layard, P. Z. S.* 1876, p. 494; *Buller, B. N. Zeal.* 2nd ed. i. p. 25 (1887).

Adult. Similar to *A. tabuensis*, but much smaller and darker brown above, the head and face glossed with greenish bronze; the outer secondaries distinctly edged with white; under surface brown, broadly streaked with white; lower abdomen and under tail-coverts pure white; throat ashy white with scarcely any indication of white mesial streaks; thighs uniform brown; under wing-coverts and axillaries white: "bill and feet brownish red; iris golden yellow (*Graeffe*): "bill and feet reddish horn-colour; iris bright orange" (*Peale*). Total length 6 inches, culmen 0.65, wing 3.85, tail 2.5, tarsus 1.1.

Hab. Samoa Islands.

| | | |
|-----------------------------|--|----------------------------|
| a. Ad. st. | Tutuila, Samoa. | J. Brenchley, Esq.
[P.] |
| b, c. Ad, sk. | Samoa. | Rev. S. J. Whitmee
[C.] |
| d. ♀ ad. sk. | Samoa (<i>S. J. Whitmee</i>). | Tweeddale Coll. |
| e-g. ♂ ad.; h.
♀ ad. sk. | Ana, Upolu, Samoa, Dec. 1875
(<i>L. C. Layard</i>). | Tweeddale Coll. |

7. *Aplonis vitiensis*.

Aplonis cassini, *Gray, P. Z. S.* 1859, p. 163, note *; *id. B. Trop. Isl. Pacific Ocean*, p. 26 (1859); *id. Hand-l. B.* ii. p. 26, no. 6364 (1870).

Aplonis tabuensis (*nec Gm.*), *Finsch & Hartl. Faun. Centralpolyn.* p. 103, Taf. 10. fig. 2 (1867); *Layard, P. Z. S.* 1875, p. 435; *id. Ibis*, 1876, p. 147.

Aplonis marginalis, *Hartl. Ibis*, 1864, p. 232.

Aplonis vitiensis, *Layard, P. Z. S.* 1876, p. 502; *id. Ibis*, 1876, p. 392; *Finsch, P. Z. S.* 1877, pp. 735, 774; *W. A. Forbes, P. Z. S.* 1878, p. 352; *Finsch, Rep. Voy. 'Challenger,'* ii. *Birds*, p. 50 (1881).

Adult male. Similar to *A. tabuensis*, but smaller and browner, with scarcely any green gloss except on the head, which is washed with oil-green; under surface of body light ashy, inclining to ochreous white on the abdomen and under tail-coverts; the entire throat and breast and sides of body streaked with mesial lines of white, rather broader on the latter; outer secondaries edged with white; sides of neck brown streaked with white: "iris dark red or brown" (*J. Murray*). Total length 7 inches, culmen 0.75, wing 3.9, tail 2.3, tarsus 1.15.

* No description is given and the localities are mixed up. Three specimens were marked "*Aplonis cassini*" by Mr. Gray, and these are the only real indications of the species. I retain the better-defined name given by Mr. Layard.

Adult female. Similar to the male. Total length 6·5 inches, culmen 0·7, wing 3·8, tail 2·15, tarsus 1.

Hab. Fiji Islands; Rotumah.

| | | |
|-------------------|--|---|
| a. Ad. sk. | Fiji Islands. | Gould Coll. |
| b. ♂ ad. sk. | Ovalau, Aug. 1856 (<i>Dr. F. M. Rayner</i>). | Voy. H.M.S. 'Herald.' |
| c, d. ♂ ♀ ad. sk. | Ovalau, Nov. and May (<i>E. L. Layard</i>). | Tweeddale Coll. |
| e. ♀ ad. sk. | N'Draketti (<i>C. L. Swayne</i>). | Rev. S. J. Whitmee. |
| f. Ad. sk. | Rewa, Oct. 10, 1874 (<i>E. L. Layard</i>). | Tweeddale Coll. |
| g. ♂ ad. sk. | Levuka, July 3, 1874 (<i>E. L. Layard</i>). | Tweeddale Coll. |
| h, i. ♂ ad. sk. | Loma Loma, Dec. 3, 1875 (<i>E. L. Layard</i>). | Tweeddale Coll. |
| k. ♀ ad. sk. | Moala, Sept. 6, 1854 (<i>J. McGillivray</i>). | Gould Coll. |
| l, m. ♂ ad. sk. | Island of Totoya (<i>Dr. F. M. Rayner</i>). | Voy. of H.M.S. 'Herald.' |
| n. ♂ ad. sk. | Island of Totoya, Aug. 1855 (<i>Dr. F. M. Rayner</i>). | Voy. of H.M.S. 'Herald.' |
| o. ♂ ad. sk. | Interior of Viti Levu. | (Type of <i>A. cassini</i>)
Dr. Kleinschmidt [C.] |
| p, q. ♂ ♀ ad. sk. | Matuka. | Voy. of H.M.S. 'Challenger.' |
| r. Ad. sk. | Taviuni. | W. A. Bailward, Esq. [P.] |

8. *Aplonis fortunæ*.

Aplonis fortunæ, *Layard, Ibis*, 1876, p. 147.

"I have two birds from the island of Fortuna, similar in every measurement to the Fiji species, except that the bill is stouter every way, but not longer; and the whole bird is imbued with a black shade. The sheen of the Fijian bird is coppery, especially about the head. That of the other is of iron." (*E. L. Layard, l. c.*)

Hab. Fortuna Island.

10. *Aplonis cinerascens*.

Aplonis cinerascens, *Hartl. & Finsch*, *P. Z. S.* 1871, p. 29.

Adult. Grey-brown; underparts paler and more decided grey, having the feathers at the end margined with grey; the feathers on the rump and upper tail-coverts also with greyish margins, which on the upper tail-coverts are nearly whitish, but not so distinctly marked as on the underside; head decided brown, with a slight coppery glitter; vent and under tail-coverts dirty white; under wing-coverts pale greyish brown with whitish margins; remiges dark brown, on the margin of the inner webs paler; the inner secondaries with a very narrow pale margin along the outer vane, forming an indistinct pale stripe; tail-feathers dark brown; shafts of the remiges and rectrices blackish, pale from beneath; feathers of the mantle with very narrow pale shafts, which also are visible on the feathers of the breast: "bill and feet horny black; iris dark slate-colour; bill, feet, and legs light bluish slate" (*Garrett*). Total length $7\frac{1}{2}$ ", wing $4''\ 2''\text{--}4''\ 8''$, tail $2''\ 6''\text{--}2''\ 8''$, bill $9\text{--}9\frac{1}{2}''$, tarsus $13\text{--}14''$ (*Hartlaub & Finsch*.)

Hab. Rarotonga Island.

11. *Aplonis fuscus*.

Aplonis fuscus, *Gould*, *P. Z. S.* 1837, p. 73; *Gray*, *Gen. B.* ii. p. 328 (1846); *id.* *P. Z. S.* 1850, p. 163, *note*; *id.* *Hand-l. B.* ii. p. 26, no. 6363 (1870); *Buller*, *B. N. Zeal.* 2nd ed. i. p. 250 (1887); *Ramsay*, *Tabular List Austr. B.* p. 37 (1898).

Aplonis obscurus, *Pelz. Sitz. k. Akad. Wissensch. Wien*, xli. p. 322 (1860); *Ramsay*, *Proc. Linn. Soc. N. S. W.* vii. p. 83 (1853).

Adult male. Grey; the head glossy steel-green, not bronzy green, this green gloss overspreading the sides of the face and entire throat and breast; the remainder of the under surface dark ashy grey, the under tail-coverts dull white; under wing-coverts dull ashy. Total length 7.7 inches, culmen 0.7, wing 4, tail 2.45, tarsus 0.95.

Adult female. General colour above light ashy grey with a slight greenish gloss; wing-coverts like the back; bastard-wing and primary-coverts dusky brown; quills brown, with a greyish shade on the secondaries resembling the back; tail-feathers brown; head, sides of face, and ear-coverts with a more distinct green gloss than the back, less clear on the sides of the face: throat and breast light ashy, shading into brown on the sides of the body and flanks; centre of lower breast washed with pale ochraceous, the lower abdomen and under tail-coverts yellowish white; thighs brown; under wing-coverts and axillaries ashy white; quills dusky below, isabelline along the inner web. Total length 6.5 inches, culmen 0.65, wing 3.7, tail 2.45, tarsus 0.9.

Hab. Norfolk Island and Lord Howe's Island *.

* Sir Walter Buller's statement that this species occurs also in Australia is certainly founded on error.

| | | |
|-------------------|--|--------------------------|
| a. Ad. sk. | [Norfolk Island.] | Old Coll. |
| b. Ad. st. | [Norfolk Island.] | Dr. G. Bennett [P.]. |
| c. Ad. st. | [Norfolk Island.] | Sir T. Mitchell [P.]. |
| d. Ad. sk. | [Norfolk Island.] | Gould Coll. |
| e. Ad. sk. | [Norfolk Island.] | Zoological Society. |
| f, g. ♂ ♀ ad. sk. | Norfolk Island, June 1865. | J. Brenchley, Esq. [P.]. |
| h, i. ♂ ♀ ad. sk. | Lord Howe's Island, Sept. 8,
1853 (J. McGillivray). | Gould Coll. |
| k l, m. Ad. sk. | Lord Howe's Island. | E. Saunders [C.]. |

12. *Aplonis crassa*.

Calornis crassa, *Sch. P. Z. S.* 1883, p. 53, pl. xiv.; *Sharpe in Gould's B. N. Guinea*, iv. pl. 15 (1883); *Forbes, Nat. Wand. Malay Arch.* p. 360 (1885); *Büttik. Notes Leyden Mus.* viii. p. 65 (1886).

Adult male (type of species). General colour above and below iron-grey with a steel-green gloss, the under surface of the body rather greyer; lesser and median wing-coverts like the back, the remainder of the coverts, quills, and tail-feathers black, externally glossed with green: "bill, legs, and feet black; iris dark brown" (*H. O. Forbes*). Total length 7·2 inches, culmen 0·8, wing 4·1, tail 2·9, tarsus 0·95.

Adult female. Ashy brown with a slight gloss of steel-green, many of the dorsal feathers with a black shaft-streak; wing-coverts and quills browner; tail-feathers black; sides of face dull white, broadly streaked with blackish; throat and under surface of body white, with distinct shaft-streaks of black, much broader on the sides of the body, which are washed with dull ashy; thighs ashy brown. Total length 7·2 inches, culmen 0·8, wing 3·9, tail 2·65, tarsus 0·9.

Hab. Tenimber Islands.

| | | |
|-------------------|--|---|
| a, b. ♂ ♀ ad. sk. | Larat, Timor Laut, Aug. 1882. | H. O. Forbes, Esq. [C.].
(Types of species.) |
| c, d. ♂ ♀ ad. sk. | Larat, Timor Laut, Aug. 11,
1882 (<i>H. O. Forbes</i>). | Tweeddale Coll. |

13. *Aplonis atrifusca*.

15. *Aplonis pelzelni*.

Aplonis pelzelni, *Finsch*, *P. Z. S.* 1875, p. 644; *id. Journ. Mus. Godeffr.* Heft xii. p. 32, pl. ii. fig. 8 (1876); *id. P. Z. S.* 1877, p. 779; *id. Ibis*, 1881, p. 110.

Adult. Obscure sooty brown; head above somewhat darker; lores and front changing into sooty black; wings, tail, upper and lower tail-coverts umber-brown, a good deal lighter on the remaining plumage. Bill and feet black. Total length $6\frac{1}{2}$ ", wing $3'' 10'''$, tail $2'' 4'''$, culmen $8\frac{1}{2}'''$, tarsus $11\frac{1}{2}'''$. (*Finsch*, l. c.)

Hab. Interior mountains of Ponapé.

16. *Aplonis kittlitzii*.

? Pacific Shrike, *Lath. Gen. Syn.* i. pt. i. p. 164 (1781).

? *Lanius pacificus*, *Gm. Syst. Nat.* i. p. 306 (1788, ex *Lath.*).

Turdus columbina (nec *Gm.*), *Kittl. Kùpf. Vög.* p. 11, Taf. 15. fig. 2 (1833).

Lamprotornis columbinus (nec *Gm.*), *Bp. Conspect.* i. p. 417 (1850); *Hartl. J. f. O.* 1854, p. 168.

Lamprotornis opaca, *Licht. in Mus. Berol.*; *Cab. Mus. Hein. Th.* i. p. 201 (1850); *Licht. Nomencl. Av. Neotr.* p. 53 (1854).

? *Calornis pacifica*, *Gray, Cat. B. Tropical Isl. Pacific Ocean*, p. 25 (1859); *id. Hand-l. B.* ii. p. 27, no. 6390 (1870).

Calornis opaca, *Gray, Cat. B. Tropical Isl.* p. 26 (1850); *Gray, Hand-l. B.* ii. p. 27, no. 6391 (1870).

Calornis columbina (nec *Gm.*), *Pelz. Reis. Norara, Vög.* p. 88 (1865).

Calornis kittlitzii, *Finsch & Hartl. Faun. Centralpolyn.* p. 100 (1867); *Hartl. P. Z. S.* 1867, p. 380; *id. & Finsch, P. Z. S.* 1868, pp. 7, 117; *id. P. Z. S.* 1872, p. 100; *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 23 (1875); *Sharpe, Ibis*, 1876, p. 47; *Finsch, P. Z. S.* 1877, p. 779.

Calornis pacificus, *Finsch, Journ. Mus. Godeffr.* Heft xii. p. 31 (1870); *id. P. Z. S.* 1880, p. 575; *id. Ibis*, 1881, p. 194; *id. Vög. der Südsee*, p. 49 (1884).

Adult. Dusky blackish, with a slight steel-green shade on the edges of the feathers; below rather duller black than the upper surface, iron-grey on the lower breast and abdomen: "iris bright sulphur-yellow" (*O. Finsch*). Total length 8.8 inches, culmen 0.9, wing 4.95, tail 3.35, tarsus 1.1.

17. *Aplonis rufipennis*.

Lamprotornis zelandica, Quoy et Gaim. Voy. *Astrolabe*, (Die. p. 190, pl. 9. fig. 1 (1830-35).

Aplonis zealandicus, Gray, Voy. 'Erebus' & 'Terror,' p. 2 (1840); *id.* Gen. B. ii. p. 328 (1846); Bp. *Consp.* i. p. 417 (1850); *Gray*, P. Z. S. 1850, p. 163, note; *id.* Ibis, 1862, p. 227; Finsch, J. f. O. 1867, p. 322, 1870, p. 325; *id.* Trans. New Zeal. Inst. viii. p. 301 (1876); Buller, B. N. Zeal. 2nd ed. i. p. 25 (1887).

Aplonis obscurus, Finsch, J. f. O. 1867, p. 322, 1870, p. 325, 1872, p. 273.

Aplonis rufipennis, Layard, Ibis, 1881, p. 542; *Tristram*, l. c. p. 543.

Adult male. General plumage rufous grey, darker on the upper parts and deepening to rufous brown on the lower part of the back, rump, and upper tail-coverts; from the anterior edge of the eye a dull black streak extending to the nostrils; the primaries bright rufous on the outer webs only, being blackish brown on the inner webs; larger wing-coverts and bastard quills bright rufous; tail-feathers dark rufous brown, with a rich vinous tinge on their outer edges; underparts lighter, the feathers of the breast and abdomen having obscure narrow greyish margins; flanks, vent, and under tail-coverts rufous brown, mixed with yellow, the feathers becoming lighter at the tips; bill blackish brown, with a reddish tinge on the under mandible; legs and feet pale brown; claws yellowish brown. Total length 7.5 inches, wing 4, tail 2.5, culmen 0.75, tarsus 0.8. (*Buller*, l. c.)

Adult female. Similar to the male, but with duller plumage and of somewhat smaller size (*Buller*, l. c.).

Hab. New Hebrides.

21. CALORNIS*.

| | |
|---|----------------------|
| <i>Calornis</i> , Gray, List Gen. B. p. 53 (1841), . . . | Type |
| <i>Lamprocorax</i> , Bp. C. R. xxvii, p. 230 (1853) . . . | <i>C. zelandicus</i> |
| | <i>C. zelandicus</i> |

Range. Andamans and Nicobar Islands, Port Blair, Port Blair, Cachar; Tenasserim, Malayan Peninsula, Java, Moluccas, Philippines, throughout the Malay Archipelago, New Guinea, the Papuan Islands, Northern Australia.

Lamprotornis corvinus, *Swinhoe*, *Proc. Zool. Acclimat. Soc. London*, 1850, p. 117, pl. 117, fig. 117.

Lamprocorax corvinus, *Swinhoe*, *Proc. Zool. Acclimat. Soc. London*, 1850, p. 117, pl. 117, fig. 117.

Calornis corvinus, *Swinhoe*, *Proc. Zool. Acclimat. Soc. London*, 1850, p. 117, pl. 117, fig. 117.

Sturnoides, *Swinhoe*, *Proc. Zool. Acclimat. Soc. London*, 1850, p. 117, pl. 117, fig. 117.

1867, *Proc. Zool. Acclimat. Soc. London*, 1867, p. 117, pl. 117, fig. 117.

Shining black, with a greenish blue gloss, and a greenish blue gloss to purplish green.

Hab. Mount Kinabalu, Borneo.

This species is . . .

This species is . . .

Key to the Species.

- A. With no brown on the quills.
- a. With bright reddish purple on throat or crown, mantle or hind neck.
- a'. Larger: tail strongly graduated, the centre feathers much produced.
- a". Head purple; mantle purple, separated from the head by a glossy green collar.
- a'''. Throat green or slightly washed with purple, in either case resembling the cheeks and sides of the face *metallica* and allies, [pp. 138-141.
- b'''. Throat uniform purple, contrasting with the throat, which is bright green. *gularis*, p. 141.
- b''. Head purple, no purple on mantle, which is green *purpureiceps*, p. 142.
- b'. Smaller: tail only slightly graduated; head and back oily-green, only slightly washed with purple; the hind neck purple, forming a collar *minor*, p. 142.
- b. Green or greyish green, with no sharp contrasts in the plumage; no purple or bright green collar round the hind neck. [pp. 143-149.
- c'. Green gloss accentuated *chalyben* and allies,
- c. Green gloss dull and lead-coloured *obscura*, p. 149.
- B. Primaries light brown, dusky at tips.
- c. Larger: head purple; back green *grandis*, p. 150.
- d. Smaller: head and back steel-green *minor*, p. 151.

1. *Calornis metallica*.

Lamprotornis metallica, Temm. *Pl. Col.* ii. pl. 266 (1824); Less. *Voy. Coquille*, i. p. 343 (1826); Müll. *Verh. Land- u. Volkenk.* pp. 102, 116 (1830-44); Bp. *Consp.* i. p. 417 (1850); Jacq. et Pucher. *Voy. Pôle Sud*, Zool. iii. p. 81 (1853); Cass. *Proc. Philad. Acad.* 1862, p. 313; Fusch, *Neu-Guinea*, p. 174 (1863); *Cub. & Reichen. J. f. O.* 1876, p. 322.

Stourne bronzé, Hombr. et Jacq. *Voy. Pôle Sud, Atlas*, pl. 16, fig. 2 (1832-35).

Aplonis metallica, Gould, *B. Austr., Suppl.* pl. 33 (1851); Macgillivray, *Voy. 'Rattlesnake'*, ii. p. 357 (1852).

Calornis metallica, Gray, *Gen. B.* ii. p. 327 (1846); Hartl. *J. f. O.* 1854, p. 164; *Scl. Journ. Linn. Soc.* ii. p. 164 (1858); Gray, *P. Z. S.* 1858, p. 104; *id.* *Cat. Mamm. etc. New Guinea*, p. 59 (1859); Wall. *P. Z. S.* 1862, p. 335; Gould, *Handb. B. Austr.* i. p. 477 (1865); Rosenb. *Reis. naar Zuidoostereil.* p. 80 (1867); Ramsay, *P. Z. S.* 1868, p. 385; *Scl. P. Z. S.* 1869, p. 120; Gray,

his visit to Kuschai. He writes to me:—"It no doubt exists on Kuschai, just as it did when Kittlitz visited the island. Nobody has reached the mountains in the interior since Kittlitz's time, and it is strictly a mountain bird. When I was on Kuschai the path from one side of the coast was no longer used by the natives, the reason being the great and rapid decrease in their number, only a few hundred of them now surviving (I believe not more than three hundred and fifty, all told). Kittlitz only got two specimens, which I saw in St. Petersburg. It is a very distinct species."

The bird, as figured by Kittlitz, has a very slender bill, and may not be a true *Calornis* after all.

- Hand-l. B.* ii. p. 26, no. 6376 (1870); *Walden, Trans. Z. S.* viii. p. 80 (1874); *Ramsay, P. Z. S.* 1875, p. 593; *Salvad. & D'Albert. Ann. Mus. Civic. Genov.* vii. p. 827 (1875); *Sharpe, Ibis*, 1876, p. 47; *Salvad. Ann. Mus. Civic. Genov.* viii. p. 402 (1876), ix. p. 38 (1876); *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 78 (1876); *Masters, Proc. Linn. Soc. N. S. W.* i. p. 54 (1877); *Salvad. Ann. Mus. Civic. Genov.* x. p. 148 (1877); *id. P. Z. S.* 1878, pp. 88, 97; *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 107 (1878), p. 279 (1879) iv. pp. 77, 99 (1879); *Rosenb. Malay. Arch.* pp. 322, 370 (1879); *D'Albert. & Salvad. Ann. Mus. Civic. Genov.* xiv. p. 190 (1879); *Salvad. t. c.* p. 656 (1879); *Tristr. Ibis*, 1879, p. 442; *L. C. Layard, Ibis*, 1880, p. 295; *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 193 (1881); *id. Orn. Papuasias*, ii. p. 447 (1881); *Blasius, J. f. O.* 1883, p. 160; *Meyer, Sitz. nat. Gesellsch. Isis*, 1884, Abth. i. p. 48; *Finsch, Vög. der Südsee*, p. 13 (1884); *id. t. c.* p. 36.
- Calornis nitida*, *Gray, P. Z. S.* 1858, p. 181; *id. Cat. Mamm. etc. New Guinea*, p. 38 (1859); *id. Cat. B. Trop. Isl. Pacific Ocean*, p. 26 (1859); *id. Hand-l. B.* ii. p. 27, no. 6383 (1870); *Walden, Trans. Z. S.* viii. p. 80 (1872); *Sharpe, Ibis*, 1876, p. 48; *Scl. P. Z. S.* 1877, p. 104, 1878, p. 289; *Finsch, P. Z. S.* 1879, p. 11; *Layard, Ibis*, 1880, p. 295; *Finsch, Ibis*, 1881, p. 537; *Tristr. Ibis*, 1882, p. 137.
- Calornis viridescens*, *Gray, P. Z. S.* 1858, p. 181; *id. P. Z. S.* 1861, p. 436; *id. Hand-l. B.* ii. p. 26, no. 6378 (1870); *Walden, Trans. Z. S.* viii. p. 80 (1874); *Sharpe, Ibis*, 1876, p. 47; *id. Journ. Linn. Soc., Zool.* xiii. pp. 318, 501 (1877).
- Calornis amboinensis*, *Gray, P. Z. S.* 1858, p. 182; *id. Cat. Mamm. etc. New Guinea*, p. 38 (1859); *id. P. Z. S.* 1860, p. 355; *Bernst. Nederl. Tijdschr.* ii. p. 350 (1865); *Gray, Hand-l. B.* ii. p. 27, no. 6382 (1870); *Walden, Trans. Z. S.* viii. p. 80 (1874); *Sharpe, Ibis*, 1876, p. 48; *Rosenb. Malay. Arch.* p. 322 (1879).
- Calornis virescens*, *Gray, P. Z. S.* 1859, p. 158; *id. Cat. Mamm. etc. New Guinea*, p. 59 (1859).
- Lamprotornis virescens*, *Rosenb. Nat. Tijdschr. Nederl. Ind.* xxv. p. 248 (1863); *id. J. f. O.* 1864, p. 131.
- Calornis purpurascens*, *Gray, Hand-l. B.* ii. p. 26, no. 6377 (1870); *Walden, Trans. Z. S.* viii. p. 80 (1874); *Sharpe, Ibis*, 1876, p. 47.
- Lamprotornis purpurascens*, *Giebel, Thes. Orn.* ii. p. 430 (1875).
- Lamprotornis metallica*, var. *nitida*, *North, Proc. Linn. Soc. N. S. W.* (2) ii. p. 443 (1887).

Adult male. General colour above glossy oil-green on the scapulars, lower back, rump, and upper tail-coverts, with a faint shade of purple here and there; lesser wing-coverts and mantle glossy purplish violet; median coverts like the scapulars; greater coverts, bastard-wing, primary-coverts, and quills black, externally purplish black, the inner secondaries with glossy green edges; tail-feathers black, glossed with dull steel-blue on the margins; crown of head purplish violet as far as the nape; hind neck brilliant glossy green, as also the sides of the neck; lores, feathers round eye, sides of face, and ear-coverts glossy purplish violet; cheeks, chin, and throat glossy steel-green; fore neck purplish violet; chest and remainder of under surface of body glossy steel-green, inclining to oily green, with a faint purplish gloss on the breast, slightly developed on the sides of body and flanks; thighs and under tail-

coverts black, edged with glossy green; under wing-coverts and axillaries black, with bluish-green margins; quills below black, browner along the inner edge; bill and feet black; "iris cinnabar" (*O. Finsch*). Total length 9.2 inches, culmen 0.75, wing 4.35, tail 4.1, tarsus 0.85.

Adult female. Like the male. "Iris blood-red" (*O. Finsch*). Total length 9.2 inches, culmen 0.8, wing 4.3, tail 4.2, tarsus 0.9.

Australian specimens differ a good deal in the amount of purplish gloss on the sides of the body, and some of them have even a faint gloss of purple on the throat. Specimens from the Papuan Islands are generally remarkable for their deep green colour underneath, and for the absence of purplish gloss on the sides of the body. Some, however, are absolutely identical with Australian examples, and I do not see how more than one form can be recognized, excepting, of course, *C. gularis*, which is a very well marked species, and *C. minor* and *C. purpureiceps*, which are also distinct.

Young. Similar to the adult above, but with less metallic gloss; cheeks and under surface of body white, streaked with greenish black on the lower throat, fore neck, sides of body, flanks, and under tail-coverts.

Dr. Finsch has no doubt, from his own personal observations, that the specimens with white under surfaces are by no means always young birds, as they breed in this dress, and gain the full plumage by a change of feather, and by the wearing away of the edges themselves, whence they derive the small lance-shaped form of streak on the underparts.

Hab. Northern Australia, New Guinea, and Papuan Islands from the Solomons to the Aru group, as well as the Moluccas.

| | | |
|----------------------------------|--|--|
| a, b. Ad. et juv.
et. | Cape York. | Capt. Stanley [P.]. |
| c, d. Ad. et juv.
et. | Cape York. | J. McGillivray [C.]. |
| e, f. ♀ ad. sk. | Cape York. | J. McGillivray [C.]. |
| g, h. ♂ ad. sk. | Cape York (<i>J. McGillivray</i>). | (Types of <i>C. purpurascens</i>)
Gould Coll. |
| i, l. Ad.; m-o.
Juv. sk. | Cape York (<i>Cockerell & Thorpe</i>). | Salvin-Godman Coll. |
| p. Ad. sk. | Cape York (<i>Cockerell & Thorpe</i>). | Tweeddale Coll. |
| q, r. Ad. et juv.
sk. | Port Albany (<i>J. Coen</i>). | Tweeddale Coll. |
| s, t. Ad.; u.
Juv. sk. | Solomon Islands. | P. L. Slater, Esq.
[P.]. |
| v. Ad. sk. | New Ireland. | Sir E. Belcher [P.].
(Type of <i>C. nitida</i> .) |
| w. Ad. sk. | Duke of York Island. | Rev. G. Brown [C.]. |
| x, y. Ad.; z,
a'. Juv. sk. | Duke of York Island (<i>G. Brown</i>). | Tweeddale Coll. |
| b'. Ad. sk. | East Cape, S.E. New Guinea. | C. Hunstein [C.]. |
| c', d'. Ad.; e',
f'. Imm. sk. | Dorey. | Wallace Coll. |
| g'. Ad. sk. | Mysol, June 11, 1868 (<i>Hoeft</i>). | (Types of <i>C. viridescens</i>)
Gould Coll. |

| | | |
|--|---|--|
| <i>h.</i> ♂ ad. : <i>i-l.</i> | Aru Islands | Wallace Coll. |
| <i>i.</i> ♂ ad. : <i>m-q.</i> | | |
| <i>j.</i> imm. sk. | | |
| <i>r.</i> ♂ ad. : <i>s.</i> | Wakan. Aru Islands. | Voy. of H.M.S.
'Challenger.' |
| <i>c.</i> juv. sk. | | |
| <i>f.</i> ♀ ad. sk. | Ke Doulan. | Voy. of H.M.S.
'Challenger.' |
| <i>u.</i> ♂ Ad. sk. | Matabello. | Wallace Coll. |
| <i>v.</i> ♂ Ad. sk. | Goram. | Wallace Coll. |
| <i>x.</i> ♂ Ad. sk. | N. Ceram. | Wallace Coll. |
| <i>y.</i> ♂ Ad. sk. | Amboyna. | Wallace Coll. |
| <i>z.</i> ♂ juv. sk. | Amboyna, Feb. 10, 1884
(<i>non Rosenberg</i>). | Salvin-Godman Coll. |
| <i>a.</i> ♂ ad. ; <i>b.</i> ♀ juv. sk. | Amboyna | Leiden Museum.
(Types of <i>C. amboinensis</i> .) |
| <i>c.</i> ♂ Ad. sk. | Gilolo. | Wallace Coll. |
| <i>e.</i> ♂ Ad. sk. | Ternate. | Wallace Coll. |
| <i>f.</i> ♂ Ad. ; <i>g.</i> juv. sk. | Sula Islands. | Wallace Coll. |

Subsp. *α*. **Calornis inornata.**

Calornis inornata, *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 104 (1880);
id. Orn. Papuasias etc. ii. p. 453 (1881).

Adult. Similar to *C. metallica*, but smaller, duller, and without any green cervical collar; head, neck, and interscapular region somewhat tinged with purple, this purple colour perceptibly vanishing towards the middle of the back; the purple colour of the throat and breast scarcely visible. (*Salvadori, l. c.*)

Hab. Miori Island, in the Bay of Geelvink.

Subsp. *β*. **Calornis fuscovirescens.**

Calornis mysolensis (*nec Gray*), *Salvad. Ann. Mus. Civic. Genov.* x. p. 149 (1877).

Calornis fuscovirescens, *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 104 (1880); *id. Orn. Papuasias etc.* ii. p. 454 (1881).

Dusky blackish, with a green shine; head with scarcely any purple; bill and feet black. (*Salvadori.*)

Hab. Sorong, New Guinea (*D'Albertis*) *.

2. **Calornis gularis.**

Calornis gularis, *Gray, Proc. Zool. Soc.* 1861, pp. 431, 436; *id. Hand-list of Birds*, ii. p. 27, no. 6385 (1870); *Walden, Trans. Zool. Soc.* viii. p. 80 (1872); *Sharpe, Ibis*, 1873, p. 47; *Rosenh. Malay Arch.* p. 395 (1879); *Forbes, Proc. Zool. Soc.* 1884, p. 433; *id. Nat. Wand. East. Arch.* p. 305 (1885); *Salvad. P. Z. S.* 1884, p. 570; *Sharpe in Gould's Birds of New Guinea*, iv. pl. 13 (1885).

* Count Salvadori says that there is a specimen in the British Museum from Salawati, but I cannot find one, and I think he must have intended to refer to some other Museum.

Lamprotornis gularis, *Finsch, Neu-Guinea*, p. 174 (1865).

Calornis metallica, *Selater, Proc. Zool. Soc.* 1883, p. 51 (*nec Temm.*).

Calornis circumscripta, *Meyer, Sitz. nat. Gesellsch. Isis*, 1884, Abth. i. p. 49; *Salvad. Ibis*, 1884, p. 355.

Adult male. Similar to *C. metallica*, but with a very narrow green collar round the hind neck, separating the purple head from the purple mantle, and with the entire throat uniform purplish violet, the cheeks and malar line being glossy green: "bill and feet black; iris bright red" (*H. O. Forbes*). Total length 9 inches, culmen 0.75, wing 4.25, tail 4.5, tarsus 0.9.

Hab. Mysol; Tenimber Islands.

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|-------------------|---|-------------------------------------|
| a. ♀ ad. sk. | Mysol. | Wallace Coll.
(Type of species). |
| b, c. ♂ ♀ ad. sk. | Larat, Timor Laut, Sept. 18, 1882
(<i>H. O. Forbes</i>). | Tweeddale Coll. |
| d. ♀ ad. sk. | Larat, Timor Laut, Sept. 7, 1882. | H. O. Forbes, Esq.
[C.] |
| e. ♂ ad. sk. | Kirmoen Island, Tenimber Group,
Sept. 1, 1882. | H. O. Forbes, Esq.
[C.] |

3. *Calornis purpureiceps*.

Calornis sp. incogn., *Sol. P. Z. S.* 1877, p. 554.

Calornis purpureiceps, *Salvad. Atti R. Accad. Sci. Torino*, xiii. p. 535 (1878), *id. Ann. Mus. Civic. Genov.* xvi. p. 194 (1881); *id. Orn. Papuasia etc.* ii. p. 435 (1881); *Sol. Rep. Voy. 'Challenger,'* ii. *Birds*, p. 29 (1881).

Adult male. Similar to *C. metallica*, and with a purple head, but without any purple on the mantle, which is glossy oil-green like the rest of the back; under surface of body green with no purple gloss on the flanks, the throat entirely purple, spangled with glossy green centres to the feathers. Total length 7.5 inches, culmen 0.85, wing 4.25, tail 3.1, tarsus 0.9.

Hab. Admiralty Islands.

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|---------------------------|---|
| a, b. ♂ ad.; c. ♀ ad. sk. | Admiralty Islands. Voy. of H.M.S. 'Challenger.' |
| | (Types of species.) |

4. *Calornis minor*.

Lamprotornis minor, *Bp. Consp.* i. p. 417 (1850, *et Mull. Mus. Lugd.*); *Finsch, Neu-Guinea*, p. 174 (1875).

Calornis minor, *Wall. P. Z. S.* 1863, p. 486; *Gray, Hand-l. B.* ii. p. 26, no. 6375 (1870); *Walden, Trans. Z. S.* viii. p. 80 (1872); *Sharpe, Ibis*, 1876, p. 48; *Meyer, Sitz. nat. Gesellsch. Isis*, 1884, Abth. i. p. 48.

Adult male. Black, glossed with bright oil-green on the upper surface, the lesser wing-coverts like the back; greater and median coverts, bastard-wing, primary-coverts, quills, and tail-feathers black, with a gloss of steel-blue externally; head glossy oil-green, separated from the mantle by a distinct purple hind neck; sides of face and ear-coverts dark glossy green; entire throat purple,

extending on to the fore neck, and also shading the cheeks ; sides of neck purple ; remainder of under surface from the fore neck downwards dark glossy green, a little more dingy on the abdomen, thighs, and under tail-coverts : "iris red" (*A. R. Wallace*). Total length 7·7 inches, culmen 0·65, wing 3·9, tail 2·3, tarsus 0·8.

Adult female. Similar to the male in colour, but with a slight purplish gloss on the head. Total length 7·3 inches, culmen 0·65, wing 3·9, tail 2·3, tarsus 0·75.

Young. Browner than the adults with a slight green gloss ; below dull white, with broad blackish streaks ; sides of body uniform dull brown : "iris red" (*A. R. Wallace*).

Hab. Sumbawa, Flores, Timor, Lombok. Probably in Southern Celebes (cf. *Meyer, l. c.*).

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|------------------------------|----------------------------------|-----------------|
| <i>a.</i> ♀ ad. sk. | E. Timor. | Wallace Coll. |
| <i>b, c.</i> Ad. et juv. sk. | Timor. | Wallace Coll. |
| <i>d.</i> Imm. sk. | Timor (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| <i>e.</i> ♀ ad. sk. | Lombok (<i>A. R. Wallace</i>). | Gould Coll. |
| <i>f.</i> ♂ ad sk. | Lombok. | Wallace Coll. |
| <i>g.</i> Juv. sk. | Flores. | Wallace Coll. |

5. *Calornis chalybea*.

Turdus chalybeus, *Horsf. Trans. Linn. Soc.* xiii. p. 148 (1820).

Turdus strigatus, *Horsf. Trans. Linn. Soc.* xiii. p. 148 (1820).

Lanius insidiator, *Raffl. t. c.* p. 337 (1820).

Lamprotornis cantor, *Müll. Verh. Land- en Volkenk.* p. 174 (1830-44) ; *Bp. Consp.* i. p. 416 (1850) ; *Licht. Nomencl.* p. 53 (1854).

Lamprotornis chalybeus, *Eyton, P. Z. S.* 1839, p. 103.

Calornis cantor, *Blyth, J. A. S. Beng.* xiii. p. 366 (1844), xix. p. 225 (1850) ; *id. Cat. B. Mus. As. Soc.* p. 111 (1849) ; *Scl. P. Z. S.* 1863, p. 218 ; *Stoliczka, J. A. S. Beng.* xxxix. p. 326 (1870) ; *Walden, Ibis*, 1871, p. 176.

Calornis affinis, *A. Hay, J. A. S. Beng.* xv. p. 36 (1846) ; *Blyth, t. c.* p. 369 ; *id. op. cit.* xix. p. 225 (1850) ; *id. Cat. B. Mus. As. Soc.* p. 111 (1849) ; *Gray, Hand-l. B.* ii. p. 27, no. 6381 (1870) ; *Blyth & Wald. B. Burm.* p. 91 (1875) ; *Sharpe, Ibis*, 1876, p. 46 ; *Hume, Str. F.* 1877, p. 38.

Calornis panayensis, pt., *Gray, Gen. B.* ii. p. 327 (1846) ; *Motley & Dillw. Nat. Hist. Labuan*, p. 56 (1856).

Lamprotornis affinis, *Bp. Consp.* i. p. 416 (1850).

Lamprotornis insidiator, *Cab. Mus. Hein. Th.* i. p. 201 (1850).

Calornis chalybea, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 543 (1856) ; *Moore, P. Z. S.* 1859, p. 445 ; *Gray, Hand-l. B.* ii. p. 26 no. 6374 (1870) ; *Wald. Trans. Z. S.* viii. p. 80 (1872) ; *Salvad. Ucc. Born.* p. 271 (1874) ; *Blyth & Wald. B. Burm.* p. 91 (1875) ; *Sharpe, Ibis*, 1876, p. 45, 1877, p. 21 ; *Tweedd. Ibis*, 1877, p. 318 ; *Hume & Davison, Str. F.* 1878, p. 394 ; *Hume, Str. F.* 1879, pp. 66, 106 ; *Nichols. Ibis*, 1879, p. 170 ; *Sharpe, P. Z. S.* 1879, p. 345 ; *id. Ibis*, 1879, p. 262 ; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 238 (1879) ; *Kelham, Ibis*, 1881, p. 519 ; *Nichols. Ibis*, 1882, p. 62 ; *Vorderm. N. T. Nederl. Ind.* xliii. p. 189 (1884) ; *Büttik. Notes Leyden Mus.* ix. p. 71 (1887).

Calornis insidiator, *Walden, Ibis*, 1872, p. 381.

Aplonis cantor, *Snellm. Exped. Midden-Sumatra, Vogels*, p. 43 (1884).

Calornis irwini, *Hume, Str. F.* i. p. 481 (1873).

Adult male. General colour above glossy steel-green, a purple shade being with difficulty distinguished; lesser and median coverts like the back, the latter black, broadly edged with glossy green; greater coverts and bastard-wing black, washed externally with glossy green; primary-coverts, quills, and tail-feathers black, externally glossed with dull steel-green, slightly varied with purplish; crown of head glossy steel-green, the feathers of the occiput and nape somewhat lanceolate; lores velvety black, extending to the base of the nostrils and below the eye; feathers round eye, sides of face, ear-coverts, cheeks, and under surface of body glossy steel-green like the upper surface, a trifle duller on the abdomen and under tail-coverts; under wing-coverts and axillaries black, edged with steel-green or bluish green; quills below black, a little browner along the inner edge. Total length 7.5 inches, culmen 0.8, wing 3.9, tail 2.5, tarsus 0.9.

Adult female. Similar to the male. Total length 7 inches, culmen 0.75, wing 3.75, tail 2.45, tarsus 0.8.

Young. Nearly uniform dark brown above, slightly mottled with greenish-black spots at the end of some of the feathers; wing-coverts like the back; the greater series, bastard-wing, primary-coverts, and quills blackish, externally edged with pale brown; tail feathers blackish, browner on the inner web; head brown like the back, as also the sides of the face, the cheeks streaked with white; under surface of body dull white, streaked with blackish brown, more broadly on the flanks; the throat more dingy brown, streaked with black.

The adult plumage is gained by a complete moult, but before this commences there seems to be some accession of gloss on many of the feathers, especially of the head.

So complete is the transition between *C. chalybea* and *C. affinis* of Tipperah, that I have been unable to separate them. Typical birds from Java, Sumatra, or Malacca have very little of the bronzy purple gloss on the underparts, which is always more or less distinct in *C. affinis*; but the Tenasserim specimens are thoroughly intermediate, and it is impossible to find where the range of either form ends in the Burmese provinces.

The following is the length of wing in a series of birds from different localities:—Tipperah (4.2), Dacca (4.3), Cachar (4.25), Tavoy (4.0–4.15), Yea (4.15), Pakehan (4.0), Malawoon (3.8–4.2), Bankasoon (3.85–4.05), Tonka (3.85), Salang (3.85), Klang (3.8), Singapore (3.8), Sumatra (3.75–3.9), Java (3.7–3.9), Sarawak (3.6), Sibü (3.8–3.9).

In fact all the subspecies included under *C. chalybea* might well be united, but to do so seemed to me to suppress some interesting facts as regards geographical races, for the differences between them, though very slight, are found along with a certain difference of habitat.

Hab. From Tipperah and Dacca to Cachar (*C. affinis*); Tenasserim Provinces (here intermediate). Throughout the Malayau Peninsula to Sumatra, Java, and Borneo.

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| <i>a-e</i> . Ad. sk. | Tipperah. | Hume Coll.
(Types of <i>C. irwini</i> .) |
| <i>f</i> . Ad. sk. | Tipperah. | India Museum. |
| <i>g</i> . Ad. sk. | Dacca. | Hume Coll. |
| <i>h, i</i> . Ad. ; <i>k, l</i> .
Imm. sk. | Cachar. | Hume Coll. |
| <i>m</i> . ♂ ad. sk. | Yea, Tenasserim, April 3, 1874
(<i>W. Davison</i>). | Hume Coll. |
| <i>n</i> . ♀ ad. sk. | Meeta Myo, April 21, 1874 (<i>W. D.</i>). | Hume Coll. |
| <i>o-r</i> . ♂ ad. ; <i>s</i> . ♀
ad. sk. | Tavoy, April 1874 (<i>W. D.</i>). | Hume Coll. |
| <i>t, u</i> . ♂ ♀ ad. sk. | Mergui, Jan. 28, 1875 (<i>W. D.</i>). | Hume Coll. |
| <i>v, w</i> . ♂ ad. sk. | Pakchan, Jan. 1875 (<i>W. D.</i>). | Hume Coll. |
| <i>x-c'</i> . ♂ ; <i>d'</i> . ♀
ad. sk. | Bankasoon, April, June, Dec.
(<i>W. D.</i>). | Hume Coll. |
| <i>e'-o'</i> . ♂ ad. et juv. ;
<i>p'-x'</i> . ♀ ad. et
juv. | Malewoon, Jan., April (<i>W. D.</i>). | Hume Coll. |
| <i>y'-a</i> . ♂ ; <i>β-ε</i> . ♀ ad.
<i>ζ</i> . Ad. sk. | Malewoon, Jan., Feb.
Cambodia (<i>Mouhot</i>). | Oates Coll.
Tweeddale Coll. |
| <i>η, θ</i> . ♂ ad. sk. | Copah, Malay Peninsula, Jan.
19, 1879 (<i>J. Darling</i>). | Hume Coll. |
| <i>ι-π</i> . ♂ ad. et juv. ;
<i>ρ, σ</i> . ♀ ad. | Kossoum, May-July (<i>J. D.</i>). | Hume Coll. |
| <i>τ, υ</i> . ♂ ad ; <i>φ</i> . ♀
ad. sk. | Tonka, Jan. 31, 1879 (<i>J. D.</i>). | Hume Coll. |
| <i>χ, ψ</i> . ♀ juv. sk. | Tapraw, April 15, 1879 (<i>J. D.</i>). | Hume Coll. |
| <i>ω-ζ'</i> . ♂ ad. ; <i>η', θ'</i> ,
<i>ι'</i> . ♀ ad. ; <i>κ'</i> . ♂
juv. sk. | Taroar, Feb. 1879 (<i>J. D.</i>). | Hume Coll. |
| <i>λ'-ω'</i> . ♂ ad. et juv. ;
<i>a-l</i> . ♀ ad. et juv. | Salang, Feb., March (<i>J. D.</i>). | Hume Coll. |
| <i>m, n</i> . ♂ ♀ ad. sk. | Ding Ding River, Feb. 25 1879
(<i>W. Davison</i>). | Hume Coll. |
| <i>o-k'</i> . ♂ ad. et juv. ;
<i>l'-w'</i> . ♀ ad. et
juv. | Klang, Salangore, Jan., March,
July, Aug. (<i>W. D.</i>). | Hume Coll. |
| <i>x'</i> . ♂ ad. sk. | Langhat, April 10, 1877 (<i>W. D.</i>). | Hume Coll. |
| <i>y'</i> . ♂ ad. sk. | Malacca. | Wallace Coll. |
| <i>z'</i> . Ad. ; <i>a''-c''</i> .
Imm. sk. | Malacca (<i>Dr. Cantor</i>). | India Museum. |
| <i>d'', e''</i> . ♂ ♀ imm. ;
<i>f''-i''</i> . Pull. sk. | Malacca, Aug. 1873 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>k'-m''</i> . Ad. sk. | Malacca, Sept. 1875 (<i>W. Davi-
son</i>). | Hume Coll. |
| <i>n'', o''</i> . ♂ ♀ ad. ;
<i>p''</i> . ♀ juv. sk. | Pulo Seban, Oct., Nov. (<i>W. D.</i>). | Hume Coll. |
| <i>q''</i> . Juv. sk. | Singapore. | Gould Coll. |
| <i>r''-f³</i> . ♂ ad. et
juv. ; <i>g³-r³</i> . ♀
ad. et juv. sk. | Singapore, Jan., Feb., Aug.-
Nov. (<i>W. Davison</i>). | Hume Coll. |
| <i>s³</i> . ♀ ad. sk. | Acheen, Sumatra, Feb. 1, 1871
(<i>W. D.</i>). | Hume Coll. |
| <i>t³</i> . Juv. sk. | Sumatra. | Wallace Coll. |
| <i>u³</i> . Ad. sk. | Sumatra (<i>Carl Bock</i>). | Tweeddale Coll. |
| <i>v³-y³</i> . ♂ ad. ; <i>z³</i> ,
<i>a⁴</i> . ♀ ad. sk. | Siedjoendjoeng, Sumatra, Oct.
1878 (<i>Carl Bock</i>). | Tweeddale Coll. |

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| δ^1, σ^1 . ♂ ad. sk. | Java (<i>Horsfield</i>). | India Museum.
(Types of the species.) |
| δ^1 . ♀ juv. sk. | Java (<i>Horsfield</i>). | India Museum.
(Type of <i>T. strigatus</i> .) |
| σ^1 . Ad. ; ρ^1 . Imm. sk. | Java. | Tweeddale Coll. |
| σ^1, ρ^1 . ♂ ♀ ad. ; τ^1 ,
k^1 . ♂ ♀ juv. sk. | Java (<i>Leiden Museum</i>). | Salvin-Godman
Coll. |
| ρ^1, m^1 . Ad. ; π^1 .
Imm. sk. | W. Java. | F. Nicholson, Esq.
[P.]. |
| σ^1 . ♂ ad. sk. | E. Java. | Wallace Coll. |
| p^1 . Ad. ; q^1 . Imm.
sk. | Billiton. | Tweeddale Coll. |
| r^1 . Ad. sk. | Borneo (<i>Rajah Brooke</i>). | Gould Coll. |
| s^1-u^1 . ♀ ad sk. | Sarawak. | Wallace Coll. |
| v^1 . ♀ ad. sk. | Sarawak (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| w^1 . Ad. sk. | Belidah, Sarawak, Dec. 5, 1860
(<i>A. H. Everett</i>). | Tweeddale Coll. |
| x^1 . ♀ juv. sk. | Sabu, Sarawak (<i>A. Everett</i>). | Tweeddale Coll. |
| y^1, z^1 . ♂ ♀ ad.
sk. | Sibu Island, Dec., April. | A. Everett, Esq.
[C.]. |
| a^1, b^1 . Ad. sk. | Labuan (<i>J. Motley</i>). | Tweeddale Coll. |
| c^1, d^1 . Ad. sk. | Omedal Island, N. Borneo. | Dr. McKinlay [P.]. |

Subsp. *a.* *Calornis tytleri*.

Calornis affinis (*nec Hay*), *Beavan, Ibis*, 1867, p. 330; *Hume, Ibis*, 1870, p. 437; *Ball, J. A. S. Beng.* 1872, p. 285; *id. Str. F.* 1873, p. 77; *Walden, Ibis*, 1874, p. 145; *Hume, Str. F.* 1874, p. 480.
Calornis tytleri, *Hume, Str. F.* 1873, p. 480, 1874, p. 253; *Sharpe, Ibis*, 1876, p. 46; *Hume, Str. F.* 1879, p. 106.

Adult male. Similar to *C. chalybea*, but altogether darker and with no sign of an oily-green gloss, the general appearance of the bird being a dull steel-green. Size larger than in *C. chalybea*. Total length 7·6 inches, culmen 0·75, wing 4·45, tail 2·7, tarsus 0·9.

Adult female. Similar in colour to the male. Total length 8 inches, culmen 0·75, wing 4·35, tail 2·8, tarsus 0·85.

Young. Resembles the young of *C. chalybea*, being dark brown above, white below, broadly streaked with black.

The Nicobar bird seems to be even larger than that of the

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|---|---|-----------------|
| <i>p, q.</i> ♂ ♀ ad. sk. | Port Mouat, S. Andamans, April 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>r.</i> Ad. sk. | Nicobars. | India Museum. |
| <i>s.</i> ♂ ad. sk. | Camorta, Nicobars, Feb. 7, 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>t.</i> ♀ ad. sk. | Camorta, Nicobars, Dec. 1873 (<i>R. J. Wimberley</i>). | Tweeddale Coll. |
| <i>u, v.</i> ♂ ♀ ad.; <i>w.</i> ♂ juv. sk. | Katchull Island, Nicobars, March 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>x, y.</i> ♂ ♀ ad. sk. | Bompoka Island, Nicobars, Jan., March 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>z.</i> ♂ ad.; <i>a', b'.</i> ♀ ad. sk. | Great Nicobar, March 13, 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>c'.</i> Juv. sk. | Great Nicobar, April 10, 1876 (<i>J. M. de Roepstorff</i>). | Hume Coll. |
| <i>d', e'.</i> ♂ ad.; <i>f-k'.</i> ♀ ad. sk. | Nancowry Island, Nicobars, Feb. 9, 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>l.</i> ♀ ad.; <i>m'.</i> Juv. sk. | Nancowry Island, Nicobars, Feb., Dec. (<i>R. J. Wimberley</i>). | Tweeddale Coll. |
| <i>n', o'.</i> ♂; <i>p'.</i> ♀ ad.; <i>q'.</i> Imm. sk. | Trinkut Island, Nicobars, Jan., Dec. (<i>R. J. Wimberley</i>). | Tweeddale Coll. |
| <i>r'.</i> Ad. sk. | Trinkut Island, Nicobars, Feb. 23, 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>s'.</i> ♀ ad. sk. | Kondul Island, Nicobars, March 14, 1873 (<i>W. Davison</i>). | Oates Coll. |
| <i>t', u', v'.</i> ♂ ad.; <i>w'.</i> ♀ ad.; <i>x'.</i> Juv. sk. | Kondul Island, Nicobars, March 13, 1873 (<i>W. Davison</i>). | Hume Coll. |
| <i>y'-b', c', d', e'.</i> Juv. sk. | Car Nicobar, Jan., March (<i>W. Davison</i>). | Hume Coll. |
| <i>f'.</i> ♂ ad. sk. | Car Nicobar, March 19, 1873 (<i>W. Davison</i>). | Oates Coll. |

Subsp. β. *Calornis altirostris*.

Calornis altirostris, *Salvad. Ann. Mus. Civic. Genov.* (2) iv. p. 553 (1887).

Similar to *C. chalybea*, but darker, larger, and easily distinguished by its stouter and much higher bill: "bill black; feet clear green; iris red" (*Motacillinae* (*Salvadori*)).

Hab. Island of Nias, near Sumatra.

This race, which I have never seen, will require careful comparison with the Nicobar *Calornis*.

Subsp. γ. *Calornis panayensis*.

Le Petit Merle ou Muscicien de l'île Panay, *Sma. Voy. N. Guin.* p. 115, pl. 73 (1776).

Muscicapa panayensis, *Saxp. Isl. Flor. et Faun. Insabr.* ii. p. 96 (1783).

Le Merle des Colombiers, *Menth. Hist. Nat. Ois.* iii. p. 381 (1775).

Songster Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 59 (1783).

Pigeon Thrush, *Lath. t. c.* p. 64 (1783).

Turdus columbinus, *Gm. S. N. i.* p. 836 (1788).

Turdus cautor, *Gm. S. N. i.* p. 837 (1788); *Kittl. Kupf. Voy.* ii. p. 11, pl. 5, fig. 1 (1832).

Lamprotornis panayensis, *Cab. Mus. Hein.* Th. i. p. 200 (1850).

Calornis panayensis, *Gray, Hand-l. B.* ii. p. 26, no. 6373 (1870); *Walden & Layard, Ibis*, 1872, p. 97; *Walden, Trans. Z. S.* viii. p. 79 (1872); *Sharpe, Ibis*, 1876, p. 46; *id. Trans. Linn. Soc.* 2nd ser. Zool. i. p. 343 (1876); *Tweeddale, P. Z. S.* 1877, pp. 549, 763, 831; *id. P. Z. S.* 1878, pp. 113, 287, 343, 622, 710, 951; *id. P. Z. S.* 1879, p. 72; *Sharpe, Ibis*, 1884, p. 321; *Wardlaw Ramsay, Ibis*, 1886, p. 182; *Sharpe, Ibis*, 1886, p. 202; *Blasius, Ornith.*, 1888, p. 315.

Calornis columbina, *Gray, Hand-l. B.* ii. p. 27, n. 6384 (1870).

Adult male. Very similar to *O. chalybea*, but decidedly more oily green, somewhat bronzy below, and with more or less of a bronzy purplish shade on the throat and fore neck: "bill and feet black; iris vermilion-red" (*A. Everett*). Total length 7.7 inches culmen 0.75, wing 4.25, tail 2.75, tarsus 0.95.

Adult female. Similar to the male. Total length 7.4 inches, culmen 0.85, wing 4.15, tail 2.8, tarsus 0.9.

Hab. Philippine Islands.

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| a, b. Ad.; c. Juv. | Philippines. | Cuming Coll. |
| d. ^{st.} ♀ ad. sk. | Luzon, Jan. 1872 (<i>A. B. Meyer</i>). | Tweeddale Coll. |
| e. ^{sk.} ♀ ad.; f. ♀ juv. | Cebu, April 1872 (<i>A. B. Meyer</i>). | Tweeddale Coll. |
| g, h. ♂ ♀ ad. sk. | Cebu, March 1877 (<i>A. H. Everett</i>). | Tweeddale Coll. |
| i. ♀ ad. sk. | Negros, March 1872 (<i>A. B. Meyer</i>). | Tweeddale Coll. |
| k, l. ♂ ad. sk. | Dumaguete, Aug. 1877 (<i>A. H. Everett</i>). | Tweeddale Coll. |
| m. ♀ ad. sk. | Panay, Jan. 1875. | Prof. Steere [C.]. |
| n. ♂ ad. sk. | Amparo, S. Leyte, Aug. 1877 (<i>A. H. Everett</i>). | Tweeddale Coll. |
| o-q. ♂ ad. sk. | Camiguin. | Voy. of H.M.S. 'Challenger.' |
| r, s. ♂ ♀ ad. sk. | Nipah Island, July 1877 (<i>A. H. Everett</i>). | Tweeddale Coll. |
| t, u. ♂ ♀ ad. sk. | N. Bohol, Oct. 1877 (<i>A. H. Everett</i>). | Tweeddale Coll. |
| v. w. ♂ ♀ ad. sk. | Surigao, May 1877 (<i>A. H. Everett</i>). | Tweeddale Coll. |

Adult (type of species). Similar to *C. chalybea*, but with a slightly longer tail. Total length 8 inches, culmen 0·85, wing 4·1, tail 3, tarsus 0·95.

Hab. Celebes.

| | | |
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| a. Ad. sk. | Celebes. | Tweeddale Coll. (Type of species.) |
| b. Ad. sk. | Celebes. | Tweeddale Coll. |
| c. ♂ ad. sk. | Celebes. | Dr. A. B. Meyer [C.]. |
| d. Juv. sk. | N. Celebes. | Tweeddale Coll. |
| e. Ad.; f. Juv. sk. | Menado, N. Celebes. | Tweeddale Coll. |
| g-i. Ad.; k. Juv. sk. | Menado, N. Celebes. | Gould Coll. |

6. *Calornis sulaensis*.

Calornis obscura, var., Wallace, *P. Z. S.* 1862, pp. 335, 343.

Calornis neglecta, pt., Sharpe, *Ibis*, 1876, p. 46 (*nec* Wald.).

Adult. Similar to *C. chalybea* but with the tail perceptibly lengthened, and the plumage duller and more bronzy: "iris red" (*A. R. Wallace*). Total length 9·3 inches, culmen 0·85, wing 4·2, tail 3·65, tarsus 0·95.

When I reviewed the genus *Calornis* in 1876, I took for granted that the Sula Island species was the same as the Celebean bird; but I find now that they are distinct, the form from the Sula Islands having a much longer tail than *C. chalybea* or any of its subspecies, resembling in this respect the *C. metallica* group.

Hab. Sula Islands.

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| a, b. Ad.; c. Juv. sk. | Sula Islands. | Wallace Coll. |
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7. *Calornis sanghirensis*.

Calornis sanghirensis, Salvador, *Ann. Mus. Civic. Genov.* ix. p. 60 (1879); Meyer, *Sitz. nat. Gesellsch. 'Iris,' Dresden*, 1884, Abth. i. p. 45.

Adult. Similar to *C. sulaensis*, but distinguished by its larger size and enormous bill. Total length 9 inches, culmen 1·65, wing 4·6, tail 3·4, tarsus 0·95.

Hab. Sanghir Islands.

| | | |
|---------------------|--------------------------------|-----------------|
| a. Ad.; b. Juv. sk. | Sanghir Islands (A. B. Meyer). | Tweeddale Coll. |
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8. *Calornis obscura*.

Calornis obscura, *Sp. Comp.* i. p. 317 (1850), ex Pucheran, *MNH.* in *Mus. Lond.*: *Pinnac. Sen-Gallard*, p. 174 (1855).

Calornis obscura, *Comp. P. Z. S.* 1850, p. 225; Wall. *P. Z. S.* 1853, p. 32; *Comp. Muséum. B. L.* p. 26, an. 1854 (1854); Wallen, *Trans. Z. S.* vii. p. 91 (1852); Salvador, *Ann. Mus. Civic. Genov.* viii. p. 391 (1879); Sharpe, *Ibis*, 1876, p. 45; *Ann. Malay. Arch.* p. 385 (1878); Salvador, *Ann. Mus. Civic. Genov.* xvi. p. 134 (1880); id. *Ann. Pinnac. Sen-Gallard* ii. p. 454 (1881); id. *Ibis*, 1886, p. 152.

Calornis obscura, *Comp. P. Z. S.* 1861, p. 431; Wallace, *P. Z. S.*

1862, p. 343; *Gray, Hand-l. B.* ii. p. 27, no. 6306 (1870); *Wald. Trans. Z. S.* viii. p. 80 (1872); *Sharpe, Ibis*, 1876, p. 47.
Calornis placidus, *Gray, MSS.*; *Wall. P. Z. S.* 1862, p. 343.
Lamprotornis mysolensis, *Finsch, Neu-Guinea*, p. 174 (1865).
Calornis crassirostris, *Wald. Trans. Z. S.* viii. p. 80 (1872); *Sharpe, Ibis*, 1876, p. 46.

Adult male. Dull glossy steel-green both above and below, the tail long and strongly graduated; wings and tail black, the feathers externally blue-black. Total length 10·5 inches, culmen 0·8, wing 4·45, tail 4·5, tarsus 0·9.

Adult female. Similar to the male. Total length 9 inches, culmen 0·85, wing 3·95, tarsus 0·9.

Young More dusky than the adults, and very broadly streaked with greenish black below.

Hab. Molucca Islands; Gilolo or Halmahera, Ternate, Morotai or Morty Island, Batchian, Obi, Bourou, Ceram, Amboina, Waigiu, Mysol.

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| a-c. Ad. sk. | Gilolo. | Wallace Coll. |
| d, e. Ad. sk. | Morty Island. | Wallace Coll. |
| f, g, h. Ad.; i, k. Juv. sk. | Batchian. | Wallace Coll. |
| l. Ad.; m. Imm. sk. | Batchian (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| n. ♀ ad. sk. | Batchian, Aug. 3, 1861 (<i>Dr. Bernstein</i>). | Salvin-Godman Coll. |
| o. ♂ ad. sk. | Mesmon Island. | Wallace Coll. (Type of <i>C. placidus</i> .) |
| p. Ad. sk. | Bouru. | Wallace Coll. |
| q. Ad.; r. Juv. sk. | Ceram. | Wallace Coll. |
| s. Ad. sk. | E. Ceram. | Wallace Coll. |
| t. ♀ ad. sk. | Amboyna, Feb. 5, 1864 (<i>von Rosenberg</i>). | Salvin-Godman Coll. |
| u. ♂ ad. sk. | Mysol. | Wallace Coll. (Type of <i>C. mysolensis</i> .) |
| v. Juv. sk. | Mysol. | Wallace Coll. |
| w. Ad.; x. Juv. sk. | Salawatti. | Wallace Coll. |
| y. Ad. sk. | "Kushai." | M. Verreaux. |
| z. Ad. sk. | ? | Tweeddale Coll. |

(Type of *C. crassirostris*.)

Adult male. General colour above black with a green gloss slightly shading into purple on the mantle, upper back, and scapulars; lower back, rump, and upper tail-coverts more decidedly glossy green: wing-coverts like the back; bastard-wing, primary-coverts, and secondary quills black, washed externally with glossy green; primaries light brown, blackish brown at the ends and at the base of the outer web; tail-feathers black, glossed with green externally; crown of head, nape, and hind neck more purple than the back, the feathers long and lanceolate; sides of face, ear-coverts, cheeks, throat, and fore neck also glossy purple; the feathers of the throat, sides of neck, and fore neck lanceolate; breast and abdomen, sides of body, flanks, thighs, and under tail-coverts glossy green; under wing-coverts and axillaries black, with glossy green edges: quills below pale reddish isabelline with blackish ends: "bill and feet black; iris red" (*C. M. Woodford*). Total length 10·5 inches, culmen 1·05, wing 5·6, tail 4, tarsus 1·3.

Adult female. Similar to the male in plumage. Total length 10 inches, culmen 0·95, wing 5·55, tail 3·85, tarsus 1·25.

Hab. Solomon Islands.

| | | |
|--------------------------|----------------------------------|------------------------------|
| <i>a, b.</i> ♂ ♀ ad. sk. | Aola, Guadalcanar, May,
July. | C. M. Woodford, Esq.
[C.] |
| <i>c, d.</i> ♂ ♀ ad. sk. | Fauro. | C. M. Woodford, Esq.
[C.] |

10. *Calornis minor*.

Sturnoides minor, *Ramsay, Proc. Linn. Soc. N. S. Wales*, vi. p. 726 (1882); *id. op. cit.* vii. p. 26 (1883).

Lamprocorax ? *minor*, *Salvad. Ann. Mus. Civic. Genov.* xviii. p. 426 (1882); *id. Orn. Papuasia etc.* iii. App. p. 500 (1882).

Calornis fulvipennis, *Tristram, Ibis*, 1882, p. 137 (*nec Jacq. et Puch.*).

Sturnoides (*Lamprotornis*) *minor*, *Ramsay, Proc. Linn. Soc. N. S. Wales*, vii. p. 688 (1883).

Lamprocorax minor, *Sharpe in Gould's B. New Guinea*, part 23 (1886) *.

Adult male. Similar to *C. grandis*, but much smaller. Black, with a purplish-blue gloss: green on the head, neck, and mantle, throat and breast, the feathers with a glossy centre, producing somewhat of a streaked appearance; quills and tail brown: "bill and feet black: iris scarlet" (*G. E. Richards*). Total length 8·3 inches, culmen 0·85, wing 4·6, tail 3·25, tarsus 1·1.

Adult female. Similar in colour to the male. Total length 8 inches, culmen 0·8, wing 4·35, tail 2·8, tarsus 1·05.

Hab. Solomon Islands.

| | | |
|---------------------|---|------------------------------|
| <i>a.</i> ♂ ad. sk. | Makira Harbour, San Christoval,
Dec. 10, 1880. | Capt. G. E. Richards
[C.] |
|---------------------|---|------------------------------|

* Plate lettered *L. grandis* by mistake.

22. **MACRUROPSAR.**

Type.

Macruropsar, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 345 (1878)..... *M. magnus*.

Range. Islands of Mafor and Mysori, in the Bay of Geelvink, N.W. New Guinea.

1. *Macruropsar magnus*.

Lamprotornis magnus, *Schl. Nederl. Tijdschr.* iv. p. 18 (1873, ex *Von Rosenb. MSS.*); *Walden, Trans. Z. S.* viii. p. 205 (1872); *Rosenb. Malay. Arch.* pp. 558, 591 (1879).

Lamprotornis major (lapsu), *Salvad. Ann. Mus. Civic. Genov.* xii. p. 345 (1878).

Macruropsar magnus, *Salvad. Ann. Mus. Civic. Genov.* xii. p. 345 (1878), xvi. p. 195 (1880); *id. Orn. Papuasia etc.* ii. p. 458 (1881); *Sharpe in Gould's B. New Guinea*, iv. pl. 12 (1882); *Meyer, Abbild. Vogel-Skel.* pl. lxxxi. (1886).

Adult. Black with an oily-green gloss, the lesser wing-coverts like the back; median and greater coverts, bastard-wing, primary-coverts, quills, and tail-feathers black, with an oily-green gloss on the outer web; head all round, ear-coverts, sides of face, throat, and fore neck purplish; rest of under surface of body dull green like the back. Total length 14.3 inches, culmen 0.95, wing 5, tail 9, tarsus 1.2.

Hab. Islands of Misori and Mafoor in the Bay of Geelvink, N.W. New Guinea.

α. ♂ ad. sk. Kordo, Misori, March 1873 (*Dr. A. B. Tweeddale Coll. Meyer*).

23. **STREPTOCITTA.**

Type.

Streptocitta, *Bp. Consp.* i. p. 382 (1850)..... *S. albicollis*.

Range. Confined to Celebes.

Key to the Species.

remainder of wing-coverts, quills, and tail-feathers black, washed with steel-green on the edges; crown of head, entire hind neck, and under surface of the body white; the chin and upper throat, cheeks, lores, sides of face, and all the region above and behind the eye, including the greater part of the ear-coverts, bare, the skin corrugated; lower flanks, lower abdomen, thighs, and under tail-coverts black glossed with green, as also the under wing-coverts and axillaries; a white feather near the edge of the under greater coverts; quills black below. Total length 18 inches, culmen 1.25, wing 5.8, tail 10.5, tarsus 1.4.

Hab. Sula Islands.

a. Ad. sk.

Sula Islands.

Leyden Museum.

25. LAMPROTORNIS *.

| | Type. |
|--|---------------------|
| Lamprotornis, <i>Temm. Man. d'Orn.</i> i. p. lv (1820) | <i>L. caudatus.</i> |
| Juida, <i>Less. Traité d'Orn.</i> p. 407 (1831) | <i>L. caudatus.</i> |
| Urauges, <i>Cab. Mus. Hein. Th. i.</i> p. 200 (1850) | <i>L. caudatus.</i> |

Range. North-east, East, and West Africa.

Key to the Species.

- a.* With the crown of head and throat bronzy, the former forming a distinct cap.
 - a'.* Flanks steel-blue, as also the under tail-coverts; back and breast glossy oil-green. *caudatus*, p. 154.
 - b'.* Flanks violet or reddish purple, as well as the under tail-coverts; hind neck and mantle more or less violet and purple *porphyropterus*, p. 156.
- b.* With the crown and throat glossy steel-blue or violet, not bronzy.
 - c'.* Throat and chest steel-blue; head violet, steel-blue on the forehead; back steel-blue with violet gloss. *mevessi*, p. 157.
 - d'.* Throat and chest reddish purple; crown and back reddish purplish or violet *purpureus*, p. 158.

1. *Lamprotornis caudatus.*

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|---------------|---------------------------------|------------------------------|
| a. Ad. sk. | Senegal. | Shelley Coll. |
| b. Ad. sk. | Goree (<i>Mus. Lieb.</i>). | Sharpe Coll. |
| c. d. Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| e. Ad. sk. | West Africa. | Eyton Coll. |
| | | (Type of <i>L. eytoni</i> .) |
| f. Ad. sk. | West Africa. | Sharpe Coll. |
| g, h. Ad. st. | West Africa. | Purchased. |

2. *Lamprotornis porphyropterus*.

Lamprotornis purpureoptera, *Rupp. Syst. Uebers.* pp. 64, 75, Taf. 25 (1845); *Hartl. J. f. O.* 1859, p. 11, *Heugl. J. f. O.* 1868, p. 2; *Blanf. Geol. & Zool. Abyss.* p. 397 (1870), *Fisch. Trans. Z. S.* vii. p. 258 (1870), *Sharpe, Cat. Afr. B.* p. 56 (1871), *Antin. & Salvad. Viagg. Bugos.* p. 127 (1873); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 1 (1875); *Cab. J. f. O.* 1878, p. 533; *Fischer & Reichen. J. f. O.* 1878, p. 261; *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 100 (1881); *Fischer, Zeitschr. ges. Orn.* i. p. 336 (1884), *Rochebr. Faun. Sénég.* Ois. p. 229 (1884); *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 198 (1884).

Juida purpureoptera, *Gray, Gen. B.* ii. p. 326 (1846); *id. Hand-l. B.* ii. p. 28, no. 6324 (1870).

Lamprotornis æneoides, *Temm. MSS. in Mus. Lugd.*, undè

Juida æneoides, *Bp. Consp.* i. p. 415 (1850).

Urauges purpureopterus, *Cab. Mus. Hein. Th.* i. p. 200 (1850).

Urauges porphyropterus, *Cab. l. c.*, note (1850).

Lamprotornis æneocephalus, *Heugl. Syst. Uebers.* p. 36 (1856).

Lamprotornis burchelli (*nec Smith*), *Heugl. Syst. Uebers.* p. 36; *id. J. f. O.* 1867, p. 294.

Juida phœnicophœa, *Pr. Württ. Namm.* 1857, p. 432; *Heugl. J. f. O.* 1867, p. 294.

Lamprotornis æneus (*nec Gm.*), *Brehm, Reis. Habesch*, p. 216 (1863).

Juida ænea, *Antin. Cat. descr. Ucc.* p. 60 (1864).

Lamprotornis porphyropterus, *Heugl. Orn. N.O.-Afr.* i. p. 511 (1870), iv. *App.* p. cxxv (1871); *Fischer & Reichen. J. f. O.* 1879, p. 349.

Adult male. Smaller than *L. caudatus*, and differing in its reddish-purple flanks and under tail-coverts; the mantle and hind neck also more violet and reddish purple: "bill and feet black; iris sometimes pale yellow, sometimes whitish" (*Heuglin*). Total length 14 inches, culmen 0.9, wing 6.8, tail 8.2, tarsus 1.7.

Adult female. Similar to the male, but the colours rather duller and the size smaller. Total length 14 inches, culmen 0.9, wing 6.6, tail 8.5, tarsus 1.55.

Young. Much duller than the adults, dusky blackish with only a feeble gloss of the colours which distinguish the old birds, there being scarcely any gloss whatever on the under surface of the body.

There is a remarkable disparity in size in a number of specimens, and these differences may perhaps not be altogether sexual, but indicate the existence of a small tropical race. Unfortunately I have not had a sufficient number of specimens to prove whether this be so or not. The example from the Bari country has the wing only

5·65 inches, and the tail is of about the same length, whereas in a fine specimen from Keren the wing is 6·7 inches and the tail 8 inches. The other males have the wing from 6·6 to 6·75 inches. A female collected by Mr. Blanford has the wing 6·55 inches, while a female obtained by Mr. Jesse at Waliko had the wing only 5·6 inches. A specimen in the Shelley collection, obtained by the late Dr. Hildebrandt on the Adi River, has a coppery bronze crown, a steel-blue back instead of purple, no velvety spots on the scapulars, and the outer aspect of the wing steel-green; on the under surface there is a remarkable absence of golden copper on the breast and of purple on the flanks. This specimen is not in the best condition, but I can scarcely believe that the differences are due to age.

Hab. N.E. Africa, extending into Eastern and Central Africa.

| | | |
|---------------------------|---|----------------------------|
| a. Ad. sk. | Keren, Bogos (<i>Esler</i>). | Sharpe Coll. |
| b, c. ♂ ♀ ad.; d. Ad. sk. | Anseba Valley, July 1868. | W. T. Blanford, Esq. [O.]. |
| e, f. ♂ ♀ ad. sk. | Waliko, July 1868 (<i>W. Jesse</i>). | Tweeddale Coll. |
| g. ♂ ad. sk. | Bejook, July 13, 1868 (<i>W. Jesse</i>). | Tweeddale Coll. |
| h. Juv. sk. | Shoa (<i>Harris</i>). | India Museum. |
| i. Ad. sk. | Bari Negro Country (<i>Knob-lecker</i>). | Sharpe Coll. |
| k. ♀ ad. sk. | Lado, March 9, 1879 (<i>Emin Pasha</i>). | Shelley Coll. |
| l. ♂ ad. sk. | Adi River, E. Africa, July 1887 (<i>Dr. Hildebrandt</i>). | Shelley Coll. |

3. *Lamprotornis mevesi*.

Juida mevesi, *Wahlb. J. f. O.* 1857, p. 1; *Gray, Hand-l. B. i.* p. 23, no. 6326 (1870); *Gurney, in Anderss. B. Dam.-Ld.* p. 159 (1872).

Lamprotornis mevesi, *Hartl. J. f. O.* 1859, p. 12; *Sharpe, Cat. Afr. B.* p. 56 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 48 (1875); *Bocage, Orn. Angola*, p. 303 (1881); *Sharpe in Oates' Matabele-Land, App.* p. 317 (1881); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 110 (1882); *Sharpe, ed. Layard's B. S. Afr.* pp. 423, 846 (1884); *Souza, Jorn. Lisb.* xi. p. 152 (1887).

Adult male. Very similar to *L. caudatus*, but much smaller, more reddish purple on the lower back and rump; the head and throat glossy steel-blue with a purple gloss, but no bronze; the scapulars and wing-coverts without any subterminal spots of velvety black: "bill and feet black; iris brown" (*Anchieta*). Total length 13 inches, culmen 0·75, wing 6·3, tail 7·5, tarsus 1·65.

Young. More dusky than the adults, and with much less metallic plumage, the feathers on the head more steel-blue, and the back and wings greener, as well as the throat; the coppery bronze-colour on the breast also absent.

Hab. From Damara Land to the Matabele country.

- a, b, c. ♂ ad. sk. Ovaquenyama, June 1867 Sharpe Coll.
(C. J. Andersson).
d. ♂ juv. sk. Nata River, Matabele, Dec. 5, W. G. & C. E. Oates,
1874 (F. Oates). Esq. [P.].

4. *Lamprotornis purpurea*.

Lamprotornis purpurea, Bocage, *Jorn. Lib.* 1867, p. 334; *Finch & Hartl. Vög. Ostaf.* p. 382, note (1870); *Sharpe, Cat. Afr. B.* p. 58 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 50 (1875); *Bocage, Orn. Angola*, p. 305, pl. vii. (1881); *Sharpe, ed. Layard's B. S. Afr.* p. 423 (1884).

Juida purpurea, Gray, *Hand-l. B.* ii. p. 24, no. 6347 (1870).

Adult. Similar to *L. meyeri* and of about the same size, but entirely golden bronze with violet reflexions above; tail violet; head like the mantle, with no sign of steel-blue but violet; throat and breast reddish violet, not steel-blue or green, the breast and abdomen bronzy brown, not purple: "bill and feet black; iris brown" (*Anchieta*). Total length 14.2 inches, culmen 0.85, wing 6.1, tail 8.5, tarsus 1.6.

Young. Pale dusky greyish, with a certain amount of violet shade; lores and ear-coverts more dusky; secondaries and tail-feathers banded under certain lights; primaries dusky, pale at the tips (*Bocage*).

Hab. Benguela.

- a. Ad. sk. Campangombe (*Anchieta*). Sharpe Coll.
b, c. ♂ ♀ ad. sk. Rio Chimba, July 1870 (*Anchieta*). Shelley Coll.

26. *CHALCOPSAR*.

Type.

Megalopterus, Smith, *Rep. S. Afr. Exped.*, App. p. 52
(1836, *nec* Boie, 1826) *L. australis*.

Range. Confined to South Africa.

1. *Chalcopsar australis*.

| | | |
|--------------|--|---|
| a. Ad. sk. | S. Africa. | Sir A. Smith, C. I.
(Type of species). |
| b. Ad. sk. | S. Africa. | Earl of Derby (P.). |
| c. Ad. sk. | S. Africa. | Edward Wilson, Esq.
(P.). |
| d. ♂ ad. sk. | Transvaal (<i>T. .lyres</i>). | Shelley Coll. |
| e. Ad. sk. | Transvaal. | A. Poissman, Esq.
(P.). |
| f. ♂ ad. sk. | Transvaal, July 8, 1873
(<i>T. E. Buckley</i>). | Shelley Coll. |
| g. ♂ ad. sk. | Crocodile River, Transvaal,
Dec. 1, 1873 (<i>P. Outen</i>). | C. G. & E. W. Outen,
Esqs. (P.). |
| h. Juv. sk. | Makalaka Country (<i>Dr. Broad-
shaw</i>). | Shelley Coll. |
| i. Ad. sk. | Lako Nguni (<i>Chapman</i>). | Sharpe Coll. |

| | | |
|--|------------------|------------|
| | 27. COSMOPSARUS. | Type |
| Cosmopsarus, Reichen. Orn. Centralbl. 1870, p. 104 | | C. togatus |

Range. Confined to East Africa.

Key to the Species.

- a. Colours brilliant; back and wings metallic blue; head green; throat green; fore neck purple; breast and abdomen golden yellow *regius*, p. 1121.
- b. Colours subdued; entirely brown, with a gloss of green on the wings and tail *unicolor*, p. 1121.

1. *Cosmopsarus regius*.

Cosmopsarus regius, *Reichen. Orn. Centralbl.* 1879, p. 108; *Fischer & Reichen. J. f. O.* 1879, p. 349, pl. i. fig. 1; *Fischer, Zeitschr. ges. Orn.* i. p. 330 (1884); *id. J. f. O.* 1885, p. 132; *Shelley, Ibis*, 1885, p. 411.

Adult. General colour above bright steel-blue, with slight reflexions of green, especially on the lower back, rump, and upper tail-coverts; scapulars and wing-coverts rich purplish blue, with a subterminal spot of velvety black on the median and greater wing-coverts; quills black, externally purplish blue, with more or less of violet reflexions, especially on the primaries; tail-feathers bronze, all but the centre ones shot with violet and blue, the outermost more steel-green, with a white edging; head and neck oily green, verging into the blue of the mantle; lores velvety black; ear-coverts dark steel-blue, the feathers somewhat frizzled; throat entirely oily green, a little more steel-green than the head and sides of neck; the lower throat washed with steel-blue, deepening on the fore neck into rich steel-blue; the chest brilliant reddish purple; remainder of under surface of body brilliant golden yellow, including the thighs, under tail-coverts, and axillaries; under wing-coverts dusky blackish, washed with steel-blue or greenish blue: "bill and legs black: iris white" (*E. Lort Phillips*). Total length 14 inches, culmen 0.85, wing 5.3, tail 8.9, tarsus 1.25.

Hab. East Africa from Masai Land to the Somali country.

a. Ad. sk. Somali Land (*E. Lort Phillips*). Shelley Coll.

2. *Cosmopsarus unicolor*.

Cosmopsarus unicolor, *Shelley, Ibis*, 1881, p. 116; *id. P. Z. S.* 1881, p. 582; *Reichen. & Schalow, J. f. O.* 1882, p. 228; *Bohm, J. f. O.* 1883, p. 196; *Reichen, J. f. O.* 1887, p. 66.

Adult male. General colour above brown, with a slight shade of oily green on the scapulars; wing-coverts like the back, as also the bastard-wing; primary-coverts and quills brown, glossed with oily green on the inner web; primaries and tail-feathers blackish, glossed with green externally; centre tail-feathers entirely glossy green, ribbed with dusky under certain lights; head, sides of face, and under surface of body brown, slightly more ashy brown below; under wing-coverts and axillaries like the breast; quills dusky blackish below: "bill and feet black; iris whitish" (*G. A. Fischer*). Total length 11.5 inches, culmen 0.8, wing 4.9, tail 6.5, tarsus 1.3.

Adult female. Similar in colour to the male. Total length 11 inches, culmen 0.75, wing 4.7, tail 5.95, tarsus 1.3.

Hab. Eastern Africa.

| | | |
|---------------|-------------------------------|---------------------|
| a, b. Ad. sk. | Ugogo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| | | (Types of species.) |
| c. ♂ ad. sk. | Saboro, Jan. 10. | Dr. Fischer [C.]. |
| d. ♀ ad. sk. | Serian, Sept. 11. | Dr. Fischer [U.]. |

28. AMYDRUS.

Amydrus, *Cab. Mus. Hein.* Th. i. p. 201 (1850) Type. A. morio.

Range. Confined to Africa.

Key to the Species.

- a.* No ashy grey on the head, which is glossy purplish or greenish black. [Males.]
- a'.* Under surface of body glossy purplish or blue-black.
- a''.* Much larger: wing 5·3–6·3 inches; under surface blue-black.
- a'''.* Dusky band at the end of the first long primary ill-defined, the rufous extending nearly to the end of the feather *morio*, p. 161.
- b'''.* Dusky end to the first long primary sharply defined and extending for more than one third of the feather *blythii*, p. 164.
- b''.* Much smaller: wing 5 inches; under surface of body glossy purplish black *walleri*, p. 164.
- b'.* Under surface of body glossy dark green *frater*, p. 164.
- b.* With ashy grey on the head. [Females.]
- c'.* Hinder head and throat with black centres to the feathers; rufous on second primary as in the male *morio*, p. 162.
- d'.* Hind head and throat uniform grey; terminal third of second primary entirely blackish.
- c''.* Head pearly grey all round; size larger; wing over 6 inches *blythii*, p. 164.
- d''.* Head iron-grey all round; smaller; wing 4·8 inches *walleri*, p. 165.

1. *Amydrus morio*.

Le Merle du Cap de Bonne Espérance, *Briss. Orn.* ii. p. 309, pl. xxiii. fig. 2 (1760); *Daubent. Pl. Enl.* iv. pl. 199.

Turdus morio, *Linn. Syst. Nat.* i. p. 297 (1766); *Gm. Syst. Nat.* i. p. 835 (1788); *Bonn. et Vieill. Enc. Méth.* ii. p. 663 (1823).

Le Jaunoir du Cap de Bonne Espérance, *Montb. Hist. Nat. Ois.* iii. p. 366 (1775).

African Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 55 (1783).

Le Roupenne, *Levaill. Ois. d'Afr.* ii. p. 134, pls. 83, 84 (1801); *Sundev. Crit. om Levaill.* p. 33 (1857).

Sturnus morio, *Daudin, Traité*, ii. p. 307 (1800).

Corvus rufipennis, *Shaw, Gen. Zool.* vii. p. 373 (1809).

Lamprotornis morio, *Licht. Verz. Doubl.* p. 18 (1823); *Rüpp. Neue Wirb.* p. 25 (1835–40); *id. Syst. Uebers.* p. 75 (1845); *Heugl. Syst. Uebers.* p. 37 (1856).

Lamprotornis rufipennis, *Swains. An. in Menag.* p. 298 (1837).

Juida morio, *Gray, Gen. B.* ii. p. 327 (1846); *Gurney, Ibis*, 1862, p. 28; *Layard, B. S. Afr.* p. 173 (1867); *Gray, Hand-l. B.* ii. p. 25, no. 6357 (1870); *Ayres, Ibis*, 1879, p. 308.

Astrapia morio, *Blyth, Cat. B. Mus. As. Soc.* p. 112 (1849).

Spreo morio, *Bp. Consp.* i. p. 416 (1850).

Amydrus morio, *Cab. Mus. Hein.* Th. i. p. 201 (1850); *Grill, Zool. Anteckn.* pp. 10, 37 (1859); *Hartl. J. f. O.* 1859, p. 30; *Sharpe*,

Cat. Afr. B. p. 51 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 80 (1874); *Shelley, Ibis*, 1875, p. 78; *Barratt, Ibis*, 1876, p. 205; *Ayres, l. c.* p. 433; *Sharpe in Oates' Matabele-Land, App.* p. 316 (1881); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 112 (1882); *Butler, Feilden, & Reid, Zool.* 1882, p. 256; *Shelley, P. Z. S.* 1882, p. 307; *Sharpe, ed. Layard's B. S. Afr.* pp. 431, 846 (1884).

Amvdrus rueppelli, *Verr. in Chenu, Encycl. Méth. v.* p. 106 (1856); *Hartl. J. f. O.* 1859, p. 31; *Heugl. J. f. O.* 1863, p. 23, 1869, p. 12; *id. Orn. N.O.-Afr.* ii. p. 524 (1870), iv. p. cxxvi (1871); *Blanf. Geol. & Zool. Abyss.* p. 398 (1870); *Finach, Trans. Z. S.* vii. p. 259 (1870); *id. & Hartl. Vog. Ostaf.* p. 382 (1870); *Antin. & Salvad. Viagg. Bogos*, p. 127 (1873); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 91 (1874); *Shelley, P. Z. S.* 1881, p. 553; *Fischer, J. f. O.* 1885, p. 131; *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 201 (1884); *Giglioli, op. cit.* (2) vi. p. 28 (1888); *Salvad. l. c.* p. 206 (1888).

Pyrrhocheira rueppelli, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 646 (1866).

Juida rueppelli, *Gray, Hand-l. B.* ii. p. 25, no. 6358 (1870).

Adult male. General colour above glossy blue-black, rather duller on the rump; wing-coverts black, glossed externally with steel-green; bastard-wing and primary-coverts blackish with scarcely any green gloss, the latter orange-chestnut on the inner web, with broad black tips; quills orange-chestnut, broadly tipped with black, the black increasing on the secondaries and the chestnut diminishing, the inner secondaries entirely black, glossed externally with steel-green; upper tail-coverts like the back; tail-feathers black, glossed externally with steel-green; crown of head like the back; lores, sides of face, ear-coverts, cheeks, and throat glossy black, but with rather more of a steel-green shade than the back; rest of under surface of body glossy blue-black, the abdomen dull blackish; the sides of body and flanks rather greener; thighs and under tail-coverts blackish, with a steel-green gloss; under wing-coverts and axillaries blackish, with steel-green margins; quills below chestnut, dusky at the ends: "bill and feet black; iris double, the inner circle dark brown, the outer circle crimson" (*T. Ayres*). Total length 11.2 inches, culmen 1.15, wing 5.7, tail 4.9, tarsus 1.3.

Adult female. In general colour like the male, but distinguished

Total length 14·5 inches, culmen 1·25, wing 6·4, tail 6·4, tarsus 1·3. On examining our series from North-eastern Africa, I find that the wing varies from 6·4 to 6·6 in the males, and from 6·15 to 6·2 in the females, and the average length of tail is about 6·5 inches.

In South-African specimens the wing varies in the males from 5·7 inches to 6·2, and in the females from 5·3 to 5·8 inches, while the tail averages about 5·5 inches. At first sight these differences would seem to indicate the existence of a larger and smaller species or race with a distinct habitat; but the specimens from East Africa in Captain Shelley's collection are completely intermediate between the South-African *A. morio* and the Northern *A. rueppelli*. The tail averages about 6 inches, the males have the wing 6 to 6·3 inches and the females 5·8 to 6·2 inches. I see no reason, therefore, for separating these forms specifically, and regard them as one species, of which the South-African representatives are the smallest and the North-east African ones the largest.

Hab. South Africa, ranging into East Africa and North-eastern Africa.

| | | |
|--|---|----------------------------|
| <i>a.</i> Juv. sk. | Cape Colony (<i>E. L. Layard</i>). | Sharpe Coll. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Cape Town, April 24, 1866 (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>d.</i> ♀ ad. sk. | Knysna, Sept. 5, 1866 (<i>C. J. A.</i>). | Sharpe Coll. |
| <i>e.</i> ♂ ad. sk. | Eland's Post, May 20, 1870 (<i>T. C. Atmore</i>). | Shelley Coll. |
| <i>f.</i> ♀ ad. sk. | Grahamstown. | Sharpe Coll. |
| <i>g.</i> ♂ ad. sk. | Kingwilliamstown. | Capt. Trevelyan [P.]. |
| <i>h, i.</i> ♂ ♀ ad. sk. | Durban, Natal (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>k, l.</i> ♂ ♀ ad.; <i>m.</i> ♂ juv. sk. | Durban, Natal (<i>Gordge</i>). | Shelley Coll. |
| <i>n.</i> ♀ ad.; <i>o, p.</i> ♂ juv. sk. | Pinetown, Natal, March, Nov. (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>r, s.</i> ♂ ♀ ad. sk. | Drakensburg Mountains, Aug. 1881 (<i>E. A. Butler</i>). | Shelley Coll. |
| <i>t.</i> ♂ ad. sk. | Pretoria. | F. A. Barratt, Esq. [C.]. |
| <i>u.</i> ♂ imm. sk. | Lydenburg Goldfields. | F. A. Barratt, Esq. [P.]. |
| <i>v, w.</i> ♂ ♀ ad.; <i>x.</i> ♂ imm. sk. | Mamboio, E. Africa (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>y, z, a', b'.</i> ♂, <i>c'.</i> ♀ ad. sk. | Ugogo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>d'.</i> ♂ ad. sk. | Kilima-Njaro. | H. H. Johnston, Esq. [C.]. |
| <i>e', f'.</i> ♂ ad. sk. | Abyssinia. | Purchased. |
| <i>g'.</i> ♂ ad. sk. | Abyssinia. | Shelley Coll. |
| <i>h'.</i> ♂; <i>i'.</i> ♀ ad. sk. | Tigré, Feb., April. | W. T. Blanford, Esq. [C.]. |
| <i>k'.</i> ♀ ad. sk. | Rayraguddy (<i>W. Jesse</i>). | Tweeddale Coll. |
| <i>l', m'.</i> ♂; <i>n'.</i> ♀ ad. sk. | Ankober, Shoa, June, Dec. (<i>Sir W. C. Harris</i>). | India Museum. |

2. *Amydrus blythi*.

Amydrus rueppelli, *Blyth, J. A. S. Beng.* xxiv. p. 300 (1855, *nee* Ferr.).

Amydrus blythi, *Hartl. J. f. O.* 1859, p. 32; *Heugl. Ibis*, 1859, p. 342; *Speke, Ibis*, 1860, p. 245, *Heugl. J. f. O.* 1863, p. 23, 1869, p. 14; *id. Orn. N.O.-Afr.* p. 523 (1870), iv. p. cxxvi (1871), *Blanf. Geol. & Zool. Abyss.* p. 330 (1870); *Finch, Trans. Z. S.* vii. p. 325 (1870), *id. & Hartl. Vog. Ostaf.* p. 807 (1870), *Scl. & Hartl. P. Z. S.* 1881, p. 171; *Hartl. t. c.* p. 953; *Quat. in Révoil's Faun. et. Flor. Pays Comalia, Ois.* p. 12 (1882); *Boehm, J. f. O.* 1885, p. 69.

Juida blythii, *Gray, Hand-l. B.* ii. p. 25, no 6360 (1870).

Adult male. Similar to *A. morio*, and of large size, but decidedly more purple. It is at once distinguished by the uniform black terminal third of the first long primary. Total length 15 inches, culmen 1.1, wing 7.05, tail 7.8, tarsus 1.5.

Adult female. Differs from the female of *A. morio* in the black terminal third of the first long primary, but still more in the colour of the head, which is uniform light hoary grey all round, including the entire throat, sides of neck, and hind neck. Total length 14.5 inches, culmen 1.1, wing 6.65, tail 7, tarsus 1.4.

Hab. North-eastern Africa; Socotra, extending to the interior of Eastern Africa.

- | | | |
|--------------------------|---|----------------------|
| a, b. ♂ ♀ ad. sk. | Magen, Senafé Pass, Abyssinia, | W. T. Blanford, Esq. |
| | Feb. 18, 1868. | [P.] |
| c. ♀ ad. sk. | Abyssinia. | Sharpe Coll. |
| d, e. ♂ ♀ ad. sk. | Socotra, March 1880. | Prof. Balfour [C.]. |
| f, g. ♂; h, i. ♀ ad. sk. | Socotra, March 1880 (<i>I. B. Balfour</i>). | Shelley Coll. |

3. *Amydrus frater*.

Amydrus frater, *Scl. & Hartl. P. Z. S.* 1881, p. 171; *Hartl. t. c.* p. 955; *Reichen. & Schadow, J. f. O.* 1882, p. 227.

Adult male (type of species). Similar to *A. morio*, but differing from that and the other allied species in having a green metallic gloss both above and below. The black ends to the rufous quills form a well-defined blackish mark extending for the terminal third of the primaries, in this respect resembling *A. blythi*. "Feet brown; iris greyish brown" (*Riebeck*). Total length 12 inches, culmen 1.2, wing 6, tail 5.5, tarsus 1.3.

Hab. Socotra.

- | | | |
|-------------|----------|--|
| a ♂ ad. sk. | Socotra. | Prof. Balfour [C.]. (Type of species.) |
|-------------|----------|--|

4. *Amydrus walleri*.

Amydrus walleri, *Shelley, Ibis*, 1880, p. 335, pl. viii.; *Reich. & Schadow, J. f. O.* 1881, p. 101; *Shelley, P. Z. S.* 1881, p. 584.

Adult male (type of species). General colour above glossy purple, the scapulars, lesser and median wing-coverts like the back; greater

coverts, bastard-wing, primary-coverts, and quills black, with steel-green edges; the primaries deep chestnut for about two thirds of their length; tail-feathers black, glossed with steel-green on the outer webs; crown of head, sides of face, and throat glossy steel-green, especially on the latter; remainder of under surface of body from the fore neck downwards glossy purple; under wing-coverts black, with glossy purplish margins; quills below chestnut with blackish ends. Total length 9 inches, culmen 0·85, wing 5, tail 3·45, tarsus 0·95.

Adult female. Much duller in colour than the male, the head and face washed with hoary grey, the throat more decidedly hoary grey. Total length 9 inches, wing 4·8, tail 4·4, tarsus 0·9.

Hab. Eastern Africa.

a, b. ♂ ♀ ad. sk. Usambara Mountains, Pangani River (Sir J. Kirk). Shelley Coll. (Types of species.)

29. ONYCOGNATHUS.

Onycognathus, Hartl. *Rev. et Mag. de Zool.* 1849, p. 495. ^{Type.} *O. fulgidus*.

Range. Confined to West Africa, ranging across the Congo Region to Niam Niam.

1. *Onycognathus fulgidus*.

Onycognathus fulgidus, Hartl. *Rev. et Mag. de Zool.* 1849, p. 495, pl. xiv. figs, 2, 3*; *id.* *Abhandl. nat. Ver. Hamburg*, ii. p. 52, taf. 7 (1849); *Verr. in Chenu, Encycl. Méth.* v. p. 160 (1856); *Hartl. Orn. W.-Afr.* p. 115 (1857); *id.* *J. f. O.* 1859, p. 35; *id.* *Abhandl. nat. Ver. Bremen*, iv. p. 86 (1874).

Juida fulgida, Gray, *Hand-l. B.* ii. p. 25, no. 6350 (1870).

Adult male. General colour above glossy purple, a little brighter on the lower back, rump, and upper tail-coverts; lesser and median wing-coverts like the back; greater coverts, bastard-wing, primary-coverts, and quills dull steel-green, slightly glossed with purple, and having a submarginal line of velvety black; the primaries deep chestnut for two thirds of their length; tail-feathers black, with a gloss of steel-green on the edges; crown of head glossy purple like the back; the hind neck, sides of neck, ear-coverts, and sides of face glossy steel-green; lores velvety black; throat glossy steel-green; remainder of under surface of body from the fore neck downwards glossy purple, rather more bluish purple on the lower flanks, thighs, and under tail-coverts; under wing-coverts black, glossed with purple; quills below chestnut, blackish towards the ends. Total length 14 inches, culmen 1·4, wing 6·4, tail 6·8, tarsus 1·4.

Adult female. Smaller; the colours scarcely to be distinguished from the male; the head and back ashy, longitudinally streaked. (*Hartlaub.*)

Hab. Island of S. Thomas, W. Africa.

a. ♂ ad. sk. S. Thomas. Purchased.

* *Onycorhamphas* on plate.

2. *Onycognathus hartlaubi*.

- Spreo morio* (*nec L.*), *Hartl. Orn. W.-Afr.* p. 115 (1857).
Onycognathus hartlaubi, *Gray, P. Z. S.* 1858, p. 291; *Hartl. J. f. O.* 1859, p. 33; *Sharpe, Ibis*, 1889, p. 334; *id. Cat. Afr. B.* p. 55 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 87 (1874); *Reichen. J. f. O.* 1877, p. 26; *Bocage, Orn. Angola*, p. 316 (1881); *Sharpe, Journ. Linn. Soc., Zool.* xvii. p. 427 (1884).
Juida hartlaubi, *Gray, Hand-l. B.* ii. p. 25, no. 6351 (1879).
Lamprotornis morio (*nec L.*), *Reichen. J. f. O.* 1873, p. 214.
Amydrus reichenovi, *Cab. J. f. O.* 1874, p. 232.
Amydrus hartlaubi, *Reichen. J. f. O.* 1875, p. 37.

Adult male. Similar to *O. fulgidus*, but very much smaller, and having the head a little more bluish purple; bill and feet black: "iris reddish brown" (*A. Reichenow*); "iris red" (*Bohndorff*). Total length 10·8 inches, culmen 1·1, wing 4·6, tail 4·5, tarsus 1·1.

Adult female. Not quite so glossy as the male, the chestnut on the wing more restricted; head and neck all round ashy grey, with greenish-black centres to the feathers. Total length 12 inches, culmen 1·2, wing 4·9, tail 4·8, tarsus 1·1.

Hab. West Africa, from the Gold Coast to the Congo and inland in the Congo region as far as Niam Niam. Fernando Po.

| | | |
|--------------------------|------------------------------------|-------------------------------|
| a, b. ♂; c. ♀
ad. sk. | Fantee. | Sharpe Coll. |
| d. Juv. sk. | Fantee. | Purchased. |
| e. ♂ ad. sk. | Fantee. | Salvin-Godman Coll. |
| f. ♀ ad. sk. | River Ogowè, Gaboon. | H. T. Ansell, Esq. [P.]. |
| g. ♂ ad. sk. | Fernando Po. | Purchased. (Type of species.) |
| h. ♀ ad. sk. | Fernando Po. | T. R. W. Thomson, Esq. [P.]. |
| i, k. ♂ ♀ ad.
sk. | Semmio, Niam Niam,
Feb., March. | F. Bohndorff [C.]. |

30. CINNAMOPTERUS.

- Cinnamopterus*, *Bp. C. R.* xxxvii. p. 830 (1853)..... Type.
Oligomyodrus, *Hartl. J. f. O.* 1859, p. 34 (*ex Schiff*,
Mus. Frankf.) *C. tenuirostris*.

Range. Confined to North-eastern Africa.

(1871: Hartl. *Adm.* in *Ter. Bremen* ix. p. 66 (1874: *Hochst. Farn. Samg.* On 1. 5. 1874.
Oligomyza summa Heng. 2. 5. 1875. p. 12.
Amyma tenuis Finner. *Trans. Z. & V.* p. 300. 1870.

Adult female. General colour above glossy purple, a little more bluish purple on the lower back, and upper tail-coverts: lesser wing-coverts black with purple markings: median and greater coverts externally glossed with dull steel-grey. Like the lesser-wing-coverts, and quills: the primaries dark chestnut with a brown black band at the end: tail-feathers black externally glossed with dull steel-grey: crown of head and hind neck glossy steel-grey, a little purplish on the sides: lower hindneck: sides of face, ear-coverts, and cheeks glossy steel-grey: lower under steel-grey, remaining of upper surface of body from the lower throat and low down downwards dull glossy purple, the under tail-coverts and under wing-coverts black with purple markings: edge of wing dark steel-grey, quills below glossy black at the end: all black, dark at the low under: the underwing tail. *Hengst.* 2. 5. 1875. p. 12. under, summer 1. wing 1. tail 1. length 1. 1.

Young. Under a colour like the adult, all the feathers edged with dark grey, especially distinct on the under surface: the under and back all round covered by dark grey up to the feathers.

Em. Not-embled after

| | | |
|--------------|-----------|-----------|
| 1. 1st. 1st. | 1st. 1st. | 2nd. 1st. |
| 1. 1st. 1st. | 1st. 1st. | 1st. 1st. |
| 1. 1st. 1st. | 1st. 1st. | 1st. 1st. |
| 1. 1st. 1st. | 1st. 1st. | 1st. 1st. |
| 1. 1st. 1st. | 1st. 1st. | 1st. 1st. |
| 1. 1st. 1st. | 1st. 1st. | 1st. 1st. |

3. PILOREIDE.

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

1. 1st. 1st.

Young. Under a. *Not-embled after*

Piloreide alirestra

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Piloreide (a. *Adm.* 1. 1. 1871. p. 20. 1871)

Amydrus albirostris, *Blanf. Geol. & Zool. Abyss.* p. 401 (1870);
Fensch, Tran. Z. S. vii. p. 260 (1870); *Shurpe, Cat. Afr. B.* p. 54
 (1871)

Adult male. General colour above and below glossy purplish blue, somewhat inclining to steel-blue on the rump and upper tail-coverts and on the lower breast, abdomen, and flanks; lesser and median wing-coverts like the back; greater coverts, bastard-wing, primary-coverts, quills, and tail black, externally dull steel-green; primaries chestnut, broadly tipped with black; under wing-coverts black glossed with steel-blue: "bill horny white; feet blackish; iris chestnut" (*Heuglin*); "iris dark coppery red, with a darker ring round the pupil" (*W. T. Blanford*). Total length 11 inches, culmen 1, wing 6.3, tail 4.65, tarsus 1.25.

Adult female. Differs from the male in being duller in colour and less glossy on the head, sides of face, throat, and fore neck a little washed with hoary grey. Total length 11 inches, culmen 0.95, wing 6.25, tail 4.45, tarsus 1.25.

Hub. North-eastern Africa.

| | | |
|-------------------|---|----------------------|
| a. ♂ ad. sk. | Abyssinia. | Baron Laugier. |
| b. ♀ ad. sk. | Abyssinia. | Purchased. |
| c. ♀ ad. sk. | Abyssinia. | Sharpe Coll. |
| d, e. ♂ ♀ ad. sk. | Senafe, Tigre, Feb., May. | W. T. Blanford, Esq. |
| | | [C.] |
| f. ♂ ad. sk. | Rayrayguddy, May 27, 1868
(<i>W. Jesse</i>). | Tweeddale Coll. |
| g. ♂ ad. sk. | Ankober, June 1842 (<i>Sir W. C. Harris</i>). | India Museum. |
| h, i. ♂ ad. sk. | Let-Marafia, Shoa, March, July
(<i>O. Antinori</i>). | Shelley Coll. |

32. HAGIOPSAR.

Range. Confined to the region of the Dead Sea in Palestine and to the Peninsula of Sinai.

1. *Hagiopsar tristrami*.

Amydrus morio (*nec L.*), *Heugl. Syst. Ueberr.* p. 371 (1856).
Amydrus tristrami, *Scl. Ann. & Mag. Nat. Hist.* (3) ii. p. 465 (1858);
Gould, B. Asia, v. pl. 45 (1859); *Hartl. J. f. O.* 1859, p. 33;
Tristr. Ibis, 1859, p. 32; *Chambers, Ibis*, 1863, p. 476; *Tristr. Ibis*, 1864, p. 230, 1867, p. 366, 1868, p. 334, *Heugl. J. f. O.* 1869, p. 13; *id. Orn. N.O.-Afr.* ii. p. 525 (1870), iv. *App.* p. cxxvi (1871); *Wyatt, Ibis*, 1870, p. 10; *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 93 (1874); *Tristr. Faun. & Flor. Palest.* p. 74, pl. xi. (1884).
Spreo fulvipennis (*nec Sw.*), *Hartl. J. f. O.* 1861, p. 173.
Amydrus nabouroup (*nec Daud.*), *Heugl. J. f. O.* 1863, p. 23.
Juida tristrami, *Gray, Hand-l. B.* ii. p. 25, no. 6359 (1870).

Adult male. Glossy purplish black, the wing-coverts and quills black, externally purplish black, somewhat inclining to steel-green

coverts, and quills black with bronzy purplish edgings, greener near the edge of the wing; primaries white for more than half the basal portion, the outer ones externally chestnut; tail-feathers black with purplish margins; crown of head, sides of face, and under surface of body glossy steel-black, the throat decidedly greener; under wing-coverts black, with glossy margins; quills below blackish, creamy buff towards the base: "bill, feet, and legs black; iris bright yellow" (*C. J. Andersson*); "iris saffron-yellow" (*Anchieta*). Total length 9·5 inches, culmen 0·95, wing 5·3, tail 4·05, tarsus 1·15.

Hab. The same as that of the genus.

| | | |
|---------------|--|-----------------------|
| a. Ad. sk. | Damara Land. | Capt. Alexander [C.]. |
| b. Imm. sk. | Damara Land (<i>C. J. Andersson</i>). | Shelley Coll. |
| c. ♂ ad. sk. | Damara Land (<i>C. J. A.</i>). | Sharpe Coll. |
| d. ♂ imm. sk. | Otjimbingue, June 29, 1863
(<i>C. J. A.</i>). | Sharpe Coll. |
| e. Imm. sk. | Otjimbingue, Sept. 1, 1863
(<i>C. J. A.</i>). | Tweeddale Coll. |
| f. Ad. sk. | Benguela. | Monteiro Coll. |

34. LAMPROCOLIUS*.

Type.

Lamprocolius, *Sunder. K. Vet.-Akad. Handl. Stockh.*

1835, p. 104..... *L. phœnicopterus*.

Range. Confined to Africa.

Key to the Species.

- a. Tail velvety black, with a blue or purple tip; velvety black spots on the wing-coverts; back metallic green or purple, but without golden bronze; a velvety black bar across the middle of the secondaries.
- a'. An auricular spot of coppery or golden bronze.
- a''. Throat bluish purple; head of the same metallic green as the mantle *splendidus*, p. 172.
- b''. Throat reddish purple; head steel-blue or steel-green, contrasting with the oil-green.

f. Throat reddish purple.

e''. Back oil-green; head reddish purple; breast and abdomen oil-green; tail blue-black, with very slight bronzy gloss on the margins *purpureiceps*, p. 184.

f'. Back brilliant steel-blue, head the same, reddish purple on the sides of the face; breast and abdomen steel-blue *cupreicaudus*, p. 184.

1. *Lamprocolius splendidus*. (Plate VII. fig. 4.)

Merle vert d'Angola, *Daubent. Pl. Enl.* iv. pl. 561.

Shining Thrush, var. A, *Lath. Gen. Syn.* ii. pt. i. p. 56 (1783).

Turdus splendidus, *Bonn et Vieill. Enc. Meth.* ii. p. 653 (1823)

Juida luxuosa, *Less teste Hartl.*

Lamprotornis chrysotis, *Sicains. B. W. Afr.* i. p. 143, pl. 6 (1837).

Juida chrysotis, *Gray, Gen. B.* ii. p. 327 (1846).

Lamprocolius chrysotis, *Bp. Consp.* i. p. 415 (1850); *Cab. Mus. Hein.* i. p. 190 (1859).

Lamprocolius splendidus, *Hartl. Orn. W.-Afr.* p. 117 (1857, pt.);

id. J. f. O. 1859, p. 14; *Sharpe, Cat. Afr. B.* p. 55 (1871); *Hartl.*

Abhandl. nat. Ver. Bremen, iv. p. 54 (1874); *Rochebr. Faun.*

Sénégal, Ois. p. 220 (1884).

Juida splendida, *Gray, Hand-l. B.* ii. p. 24, no. 6320 (1870).

Adult. Brilliant metallic golden-green, the centre of the back steel-blue, as also the scapulars, which have a subterminal spot of velvety black; lesser wing-coverts steel-green; median and greater coverts oil-green with a subterminal spot of black, the feathers bluish at their ends; bastard-wing, primary-coverts, and quills steel-blue, shaded with green externally; secondaries oil-green, steel-blue at the ends, preceded by a broad median band of velvety black; tail-feathers velvety black, shaded with purple near the base, with a broad tip of steel-green washed with blue; head golden-green like the mantle; lores velvety black; sides of face metallic steel-blue, the ear-coverts frizzled; behind the latter a spot of coppery or golden bronze; throat and breast metallic purplish blue, the breast reddish purple, the abdomen and the flanks purplish blue; lower flanks, vent, and under tail-coverts metallic steel-green; under wing-coverts and axillaries purplish blue; quills below black. Total length 10 inches, culmen 0.9, wing 5.8, tail 4.2, tarsus 1.1.

Young. All the colours of the upper surface more dingy and less metallic than the adults, the subterminal velvety black spots wanting; forehead, lores, and under surface of body brown, darker and more dusky on the abdomen, which with the flanks has a few metallic-green feathers.

Hab. West Africa, throughout the Senegambian region.

a. Ad.; *b.* Juv. sk.

West Africa.

Sharpe Coll.

c, d. Ad. sk.

River Gambia.

Sharpe Coll.

e, f. Ad. sk.

River Gambia.

Shelley Coll.

2. *Lamprocolius glaucovirens*. (Plate VII. fig. 2.)

Lamprocolius chrysotis (see Str.), *Verreux, Rev. et Mag. de Zool.* 1861, p. 415.

Lamprocolius splendidus (see F.), *Ann. Proc. Philad. Acad.* 1857, p. 36, 1859, p. 153; *Mus. P. Z. S.* 1861, p. 112; *Dahm, P. Z. S.* 1863, p. 335; *Reichen, J. f. O.* 1873, p. 36; *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 310 (1876); *Reichen, J. f. O.* 1877, p. 21; *Bocage, Orn. Angola*, p. 307 (1881); *Sharpe, Journ. Linn. Soc., Zool.* xvii. p. 436 (1884); *Sharpe, P. Z. S.* 1888, p. 37.

Lamprocolius chrysotis (see Str.), *Kraken. Nat. Tijdschr.* iii. p. 246 (1866).

Lamprocolius glaucovirens, *Elliot, Ann. & Mag. Nat. Hist.* (4) xx. p. 169 (1877); *Oust. Nouv. Arch. Mus.* (2) ii. Bull. p. 103 (1879).

Adult. Similar to *L. splendidus*, but steel-blue instead of oil-green: middle of back purplish blue: head steel-blue, the whole of the hind neck steel-green, contrasting with the head and back: entire throat and chest reddish purple, followed by brilliant golden bronze on the breast and abdomen: bill and feet black: "iris yellowish white" (*F. Bohndorff*). Total length 11 inches, culmen 0.85, wing 6.95, tail 4.3, tarsus 1.25.

Hab. West Africa from the Cameroons to the Congo, and over the Congo region to Niam Niam and the Monbuttu country.

| | | |
|------------|---|--------------------|
| a. Ad. st. | Gaboon. | M. Verreaux. |
| b. Ad. sk. | Gaboon (<i>Walker</i>). | Sharpe Coll. |
| c. Ad. sk. | Gaboon (<i>Verreaux</i>). | Sharpe Coll. |
| d. Ad. sk. | Gaboon. | Purchased. |
| e. Ad. sk. | Gaboon (<i>P. B. Du Chaillu</i>). | Sharpe Coll. |
| f. Ad. sk. | Ogowè River, Gaboon (<i>H. Ansell</i>). | Shelley Coll. |
| g. Ad. sk. | Congo River (<i>Dr. Lucan</i>). | Shelley Coll. |
| h. Ad. sk. | Landana, Congo (<i>L. Petit</i>). | Shelley Coll. |
| i. Ad. sk. | Bembe, Angola. | Monteiro Coll. |
| k. Ad. sk. | Semmio, Niam Niam, Feb. 1883. | F. Bohndorff [C.]. |
| l. Ad. sk. | Tingasi, Sept. 1881. | Emin Pasha [P.]. |

3. *Lamprocolius lessoni*. (Plate VII. fig. 3.)

Juida lessoni, *Pucher. Rev. et Mag. de Zool.* 1858, pp. 250-251; *Gray, Hand-l. B.* ii. p. 24, no. 6341 (1870).

Lamprocolius lessoni, *Hartl. J. f. O.* 1859, p. 15; *id. Abhandl. nat. Ver. Bremen*, iv. p. 56 (1874); *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 310 (1876); *Bocage, Orn. Angola*, p. 307 (1881).

Adult female. Similar to *L. splendidus*, but distinguished at once by the violet or purplish-red spot behind the ear, instead of the golden-bronze spot of *L. splendidus*: "iris pale yellow" (*MSS. Mus. Paris*). Total length 11 inches, culmen 0.15, wing 5.5, tail 4.2, tarsus 1.25.

Young. Dingy brown with a little metallic gloss, foreshadowing the brilliant colours of the adult; underneath entirely sooty brown, with a few metallic feathers of the adult plumage.

Hab. Congo district of Western Africa.

| | | |
|--------------|--|---------------|
| a. ♀ ad. sk. | River Chiloango, Congo (<i>Lucan & Petit</i>). | Shelley Coll. |
| b. Juv. sk. | Congo (<i>Dr. A. Lucan</i>). | Shelley Coll. |

4. *Lamprocolius ignitus* *. (Plate VII, fig. 1.)

Lamprotornis ignita, *Nordin in Erman's Reis., Atlas*, p. 7, Taf. 3 (1835), *Keulen. Nat. Tydschr.* iii. p. 384 (1836).

Juida ignita, *Gray & Math. Gen. B.* ii. p. 327, pl. 80 (1846).

Lamprocolius ignitus, *Bp. Consp.* i. p. 415 (1856); *Hartl. Orn. W.-Afr.* p. 116 (1857); *id. J. f. O.* 1859, p. 13; *Dohrn, P. Z. S.* 1866, p. 328; *Sharpe, Cat. Afr. B.* p. 56 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 52 (1874); *Rochebr. Faun. Senég, Ois.* p. 229 (1884).

Juida ornata (*nec Daud.*), *Gray, Hand-l. B.* ii. p. 24, no. 6338 (1870).

Adult female. General colour above metallic golden bronze, with a little reddish purple on the mantle, scapulars, and lower back; rump and upper tail-coverts glossy steel-blue with a slight greenish reflexion; lesser wing-coverts steel-green; median coverts steel-blue, with reddish-purple bases, which appear velvety black with the change of light; greater coverts reddish purple with bronze reflexion and velvety black towards the base under certain lights; bastard-wing and primary-coverts green with steel blue reflexions, reddish purple on the inner webs; quills black, steel-blue along the outer webs and at the tips, with a subterminal shade of purple, and a fringe of the latter colour along the outer webs; secondaries golden bronze like the back, with purple and violet reflexions, velvety black towards the base and with bars under certain lights; tail feathers velvety black with golden bronze reflexions, violet on the edges and metallic steel blue at the ends, forming a broad band; crown of head, hind neck, and mantle metallic steel-green, inclining to steel-blue on the latter; lores and feathers round eye velvety black; sides of face and ear-coverts dark steel-blue, the feathers having a frizzled appearance; cheeks and a spot behind the ear golden bronze with reddish-purple reflexions; under surface of body golden bronze, the throat glossed with purple and with steel-blue on the chin; sides of neck steel-green like the crown; sides of breast slightly glossed with purple; lower flanks purple; thighs and under tail-coverts steel-blue with green and purple reflexions; under wing-coverts and axillaries dusky blackish with purplish bronze edges; edge of wing steel-blue with greenish tinge; quills below blackish: "iris white" (*teste Hartlaub*). Total length 10.5 inches, culmen 0.95, wing 5.65, tail 3.9, tarsus 1.15.

One specimen is greenish instead of golden bronze below, the back being only bronze; the head is more blue than green, and the purple shades on the lower back and rump predominate over the blue. This peculiar colouring may be the effect of worn plumage, or the species may have two phases.

* *LAMPROCOLIUS ORNATUS.*

Choucador, *Levaill. Ois. d'Afr.* ii. p. 144, pl. 86 (1799), *Sundev. Crit. orn. Levaill.* p. 33 (1857).

Sturnus ornatus, *Daudin, Traité*, ii. p. 309 (1800, ex *Levaill.*).

Juida ornata, *Gray, Gen. B.* ii. p. 327 (1846).

Sundevall thinks that this is *L. ignitus* (*Nordin.*). The plate is so inaccurate that I prefer to leave the species doubtful.

violet; lesser wing-coverts bright steel-blue; median and greater coverts oil-green, with blue reflexions and a velvety-black spot at the ends; bastard wing and primary-coverts steel-blue, externally washed with oil-green and slightly fringed with black at the end; quills oil-green, inclining to steel-blue towards the ends, which are fringed with black; tail-feathers deep blue, with a slight shade of violet and purple, the centre feathers almost entirely reddish purple; crown of head beautiful reddish purple, slightly glossed with steel blue on the nape and hinder crown; hind neck steel-green, verging into the oil-green of the back; lores velvety purple; sides of face, ear-coverts, cheeks, throat, fore neck, and chest reddish purple, gradually merging into the rich violet-blue of the rest of the under surface; abdomen, sides of body, and flanks washed with reddish purple; thighs entirely reddish purple; under tail-coverts deep blue; under wing-coverts and axillaries purple; edge of wing rich blue; quills below blackish; bill and feet black: "iris bright yellow" (*Uscher*); "iris fiery" (*Heuglin*). Total length 9.5 inches, culmen 0.95, wing 5.85, tail 2.85, tarsus 1.35.

Hab. West Africa from Senegambia to Gaboon, and occurring again in Equatorial Africa.

| | | |
|------------------------|---|-----------------------|
| a. Ad. sk. | River Gambia. | Shelley Coll. |
| b. Ad. sk. | River Gambia. | Sharpe Coll. |
| c. Ad. sk. | Accra, Feb. 12, 1872 (<i>G. E. S.</i>). | Shelley Coll. |
| d, e. Ad. sk. | Accra, Feb. 27, 1872 (<i>T. E. Buckley</i>). | Shelley Coll. |
| f. Ad. sk. | Accra, March 1870 (<i>H. T. Uscher</i>). | Sharpe Coll. |
| g, h. Ad.; i. Juv. sk. | River Volta, Aug. 1870 (<i>H. T. Uscher</i>). | Sharpe Coll. |
| k. Imm sk. | River Volta, Aug. 1870 (<i>H. T. U.</i>). | Shelley Coll. |
| l. Ad. sk. | Lokoja, Niger (<i>W. A. F.</i>). | Forbes Coll. |
| m. Ad. sk. | Kutachugali, Niam Niam, Sept. 1882. | F. Behndorff
[C.]. |
| n, o. ♂ ad. sk. | Fatiko, March 1882 (<i>Emin Pasha</i>). | Shelley Coll. |
| p. ♀ ad. sk. | Wandi, Sept. 6, 1881 (<i>Emin Pasha</i>). | Shelley Coll. |

6. *Lamprocolius chalybeus*.

Lamprotornis chalybeus, *Ehr. Synh. Phys.* fol. y, pl. 10 (1828); *Rupp. Neue Wirb., Vog.* p. 27, Taf. xi. fig. 2 (1835-40); *id. Syst. Uebera*, p. 75 (1845); *Heugl. Syst. Uebera*, p. 36 (1850); *Pucher. Rev. et Mag. de Zool.* 1858, p. 256.

Lamprotornis nitens (*nec L.*), *Heugl. Syst. Uebera*, p. 36 (1850).

Juida chalybea, *Gray, Gen. B.* ii. p. 327 (1846); *Hand-l. B.* ii. p. 24, no. 6332 (1870).

Lamprocolius nitens (*nec L.*), *Cab. Mu. Hein. Th.* i. p. 198 (1850); *Antin. Cat. descr. Vcc* p. 61 (1864).

Lamprocolius cyaniventris, *Blyth, J. A. & Beng* xxiv. p. 255 (1855); *Horaf & Moore, Cat. B. Mus. E.I. C.* ii. p. 546 (1856).

Lamprocolius chalybeus, *Hartl. J. f. O.* 1859, p. 21, *Heugl. J. f. O.* 1863, p. 22; *Brehm, Reis. Habesch*, p. 327 (1863); *Heugl. J. f. O.* 1866, p. 5, *id. Orn. N O-Afr.* i. p. 514 (1870), *id. App.* p. cxxv (1871); *Blanch. Geol. & Zool. Abyss.* p. 395 (1870); *Finch, Trans. Z. S.* vii. p. 295 (1870); *Sharpe, Cat. Afr. B.* p. 55 (1871); *Antin. & Salvad. Viagg. Bogos*, p. 127 (1873); *Hartl. Abhandl.*

| | | |
|---------------|---|------------------------------|
| h. ♀ ad. sk. | Lake Ashanghi, May 4, 1868. | W. T. Blanford,
Esq. [C.] |
| i. ♂ ad. sk. | Musgah near Antalo, May 9, 1868. | W. T. Blanford,
Esq. [C.] |
| k. ♂ ad. sk. | Kokai, Lebka River, July 11, 1868. | W. T. Blanford,
Esq. [C.] |
| l. ♂ ad. sk. | Maragaz, Bogos, July 29, 1868 (<i>W. Jesse</i>). | Sharpe Coll. |
| m. Ad. sk. | Senaar (<i>Kotschy</i>). | India Museum. |
| n. ♀ ad. sk. | Alia Amba, Shoa, Feb. 1842 (<i>Sir W. C. Harris</i>). | Shelley Coll. |
| o, p. Ad. sk. | Senegal. | |

7. *Lamprocolius sycobius*.

Lamprotornis sycobius, *Licht. Nomencl. Av. Berol.* p. 53 (1854, desc. nullâ).

Lamprocolius sycobius, *Hartl. J. f. O.* 1859, p. 19; *Kirk, Ibis*, 1864, p. 321; *Finsch & Hartl. Vog. Ostaf.* p. 380 (1870); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 71 (1874); *Cab. J. f. O.* 1878, p. 233; *Reichen. t. c.* p. 261; *Bocage, Orn. Angola*, p. 308 (1881); *Gurney, Ibis*, 1881, p. 127; *Shelley, P. Z. S.* 1881, p. 583; *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 110, pl. 3 (1882); *Bohm, J. f. O.* 1883, p. 195; *Fischer, Zeitschr. ges. Orn.* i. p. 336 (1884); *Sharpe, ed. Layard's B. S. Afr.* pp. 420, 846 (1884); *T. Ayres, Ibis*, 1886, p. 288.

Juida sycobia, *Gray, Hand-l. B.* ii. p. 24, no. 6333 (1870).

Lamprocolius chalybeus (*nec Ehr.*), *Shelley, Ibis*, 1882, p. 265.

Adult. Similar to *L. chalybeus* but smaller, the shoulder-spot rather more violet than in *L. phœnicopterus* but still showing a distinct coppery gloss: "bill and feet black; iris yellow" (*Dr. Fischer*): "iris orange-yellow" (*Anchieta*); "iris golden" (*Sir J. Kirk*). Total length 8 inches, culmen 0.9, wing 4.85, tail 3.5, tarsus 1.25.

As with *L. chalybeus*, there is great variation in the length of the wing. The only specimens marked "males" have the wing 4.6 to 5.4 inches. The rest of the specimens of which the sex is unrecorded have the wing 4.6 to 5.4 inches.

Hab. Eastern Africa from the Mombasa district to the Zambezi

Lamprocolius cyanogenys, *Sunder. Œfö. K. Vet.-Akad. Förh. Stockholm*, 1850, p. 127; *Heugl. J. f. O.* 1869, p. 4.

Lamprocolius chloropterus, *Bp. Consp. i.* p. 416 (1850); *Hartl. Orn. W.-Afr.* p. 118 (1857); *id. J. f. O.* 1859, p. 20; *Antin. Cat. descr. Ucc.* p. 61 (1864); *Salvad. Atti R. Accad. Sci. Torino*, v. p. 730 (1870); *Heugl. Orn. N.O.-Afr. ii.* p. 513 (1870), iv. *App.* p. cxxv (1871); *A. Brehm, J. f. O.* 1873, p. 80; *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 64 (1874).

Lamprotornis cyanogenys, *Pucher. Rev. et Mag. de Zool.* 1858, p. 254.

Adult. Similar to *L. chalybeus*, but very much smaller and more glossy green, more uniform in colour, the rump and lower back not contrasting with the mantle so much as in *L. chalybeus*, and distinguished also by an absence of violet shades on the hind neck; the ear-coverts frizzled, deep blue, forming a patch, the blue colour not extending down the sides of the neck as in *L. chalybeus*; shoulder-patch purplish blue, with no shade of reddish purple or coppery red. Total length 8·3 inches, culmen 0·75, wing 4·75, tail 2·75, tarsus 1·2.

Hab. West Africa from Senegambia to Gaboon and throughout North-eastern and Eastern Africa down to the Zambesi.

| | | |
|-----------------------|--|------------------------------|
| a. Ad. sk. | Senegal. | Sharpe Coll. |
| b. Ad. sk. | Accra (<i>J. Smith</i>). | Sharpe Coll. |
| c. Ad. sk. | Accra (<i>J. Smith</i>). | Shelley Coll. |
| d. Ad.; e. Imm. sk. | Keren, Bogos (<i>Ester</i>). | Sharpe Coll. |
| f, g. Ad. sk. | Bogos Land (<i>Ester</i>). | Shelley Coll. |
| h. ♂ ad.; i. Juv. sk. | Ailat, Samhar, June 20, 1868. | W. T. Blanford,
Esq. C. |
| k. ♀ ad. sk. | Wandi, Equatorial Africa, Sept. 3, 1861 (<i>Emin Pasha</i>). | Shelley Coll. |
| l, m. Imm. sk. | River Rovuma (<i>J. Thomson</i>). | Shelley Coll. |
| n, o. Ad. sk. | Tete, Zambesi (<i>Sir J. Kirk</i>). | Livingstone Ex-
pedition. |

9. *Lamprocolius chalcurus*.

Lamprotornis chalcurus, *Nordm. in Erman's Reis., Atlas*, p. 5 (1835); *Pucher. Rev. et Mag. de Zool.* 1858, p. 252.

Lamprotornis cyanotis, *Savain. B. W. Afr. i.* p. 146 (1837).

Juida chalcura, *Gray. Gen. B. ii.* p. 327 (1843); *id. Hand-l. B. ii.* p. 24, no. 6340 (1870).

Lamprocolius cyanotis, *Bp. Consp. i.* p. 415 (1850); *Hartl. J. f. O.* 1859, p. 17; *Heugl. J. f. O.* 1869, p. 5; *Recherch. Faun. Sénag., Ois.* p. 230 (1864).

Lamprocolius chalcurus, *Cab. Mus. Hein. Th. i.* p. 159 (1850); *Hartl. Orn. W.-Afr.* p. 113 (1857); *Heugl. Orn. N.O.-Afr. ii.* p. 513 (1870), iv. *App.* p. cxxv (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 59 (1874).

Lamprocolius nitens (*nec L.*), *Sharpe, Ibis*, 1870, p. 453; *id. Cat. Afr. B.* p. 55 (1871).

Lamprocolius porphyreus, *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 60 (1874); *Casler, Ibis*, 1874, p. 65; *Reichen. J. f. O.* 1875, p. 36.

Lamprocolius chalcurus, var. *orientalis*, *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 106 (1881); *id. op. cit.* viii. p. 245 (1882).

Adult (type of *L. porphyreus*). Similar to *L. chloropterus*, and of the same small size, but distinguished by the reddish-purple or violet-blue base to the tail-feathers: "iris fiery red" (*Emin*); "iris scarlet" (*Ussher*). Total length 7·7 inches, culmen 0·9, wing 5·1, tail 2·55, tarsus 1·2.

Young. Dingy brown above and below, with a slight gloss of the metallic colours of the adult plumage: "iris grey" (*Reichenow*).

A female from Fatiko, in the Shelley Collection, has the wing 5·25 inches. It is rather less brightly coloured than the male.

Hab. West Afric ; Equatorial Africa.

| | | |
|--------------|--|---|
| a. Ad. sk. | Acr'a (<i>Haynes</i>). | Sharpe Coll. (Type of <i>L. porphyreus</i> .) |
| b. Ad. sk. | West Africa. | Sharpe Coll. |
| c. Juv. sk. | West Africa. | Purchased. |
| d. ♀ ad. sk. | Fatiko, Equatorial Africa,
Jan. 12, 1881 (<i>Emin Pasha</i>). | Shelley Coll. |

10. *Lamprocolius phœnicopterus*.

Le Nabiróp, *Lervill. Ois. d'Afr.* ii. p. 157, pl. 80 (1800), *Sunder.*
Crit. om Lervill. p. 34 (1857).

Sturnus auratus, *Daud. Traité d'Orn.* ii. p. 313 (1800, *nec Gm.*)

Lamprotorus aurata (*nec Gm.*), *Licht Verz. Doubl.* p. 18 (1823).

Lamprotorus phœnicopterus, *Swains. An. in Menag.* p. 360 (1837);
Symonds, Ibis, 1887, p. 331.

Juida phœnicoptera, *Gray, Gen. B.* ii. p. 326 (1846); *Layard, B. S. Afr.* p. 171 (1867); *id. Ibis*, 1869, p. 74; *Gray, Hand-l. B.* ii. p. 24, no. 6330 (1870); *Ayres, Ibis*, 1870, p. 398.

Lamprocolius phœnicopterus, *Bp. Conspect.* i. p. 416 (1850); *Cab. Mus. Hein. Th.* i. p. 190 (1850); *Hartl. J. f. O.* 1850, p. 18; *id. Ibis*, 1862, p. 148; *Sharpe, Cat. Afr. B.* p. 55 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 67 (1874); *Buckley, Ibis*, 1874, p. 378; *Shelley, Ibis*, 1875, p. 78; *Barratt, Ibis*, 1876, p. 206; *Butler, Feilden, & Reid, Zool.* 1882, p. 256; *Sharpe, ed. Layard's B. S. Afr.* pp. 425, 846 (1884).

Lamprocolius nitens, *Shelley, Ibis*, 1882, p. 265.

Adult. General colour above glossy oil-green, the mantle, upper back, and scapulars slightly washed with steel-blue; lower back, rump, and upper tail-coverts glossy steel blue; wing-coverts glossy oil-green, the median and greater coverts slightly shaded with steel-green at the ends, before which is a velvety-black spot; a shoulder-patch of purple and coppery bronze on the inner lesser and median coverts, the feathers being steel-blue slightly shaded with purple and brilliant coppery bronze towards the ends, primary-coverts glossy steel-blue; quills externally glossy oil-green, like the coverts, slightly shaded at the ends with steel-blue, before which is a sub-terminal shade of velvety black; tail-feathers steel-blue, with a gloss of steel-green, principally on the outer web; crown of head and hind neck glossy steel-blue; lores dusky blackish, as also the eyelid; sides of face and ear-coverts steel-blue, glossed with purple; cheeks steel-blue; under surface of body glossy steel-green, the throat somewhat inclining to steel-blue, the chin more oil-green;

thighs purplish blue; under tail-coverts like the abdomen; under wing-coverts purplish and steel-blue; edge of wing green; axillaries like the breast; quills below blackish. Total length 10·3 inches, culmen 1, wing 5·85, tail 3·8, tarsus 1·45.

Hab. Cape Colony.

| | | |
|---------------|--------------------------------------|---------------------|
| a. Ad. st. | South Africa. | Hardwicke Bequest. |
| b. Ad. sk. | South Africa. | Sharpe Coll. |
| c. Ad. sk. | Cape Colony. | Earl of Derby [P.]. |
| d, e. Ad. sk. | Cape Colony (<i>E. L. Layard</i>). | Shelley Coll. |
| f, g. Ad. sk. | Eland's Post (<i>T. Atmore</i>). | Sharpe Coll. |
| h. Ad. sk. | Port Elizabeth. | Sharpe Coll. |

Subsp. a. *Lamprocolius bispecularis*.

Spreo bispecularis, *Strickl. Contr. Orn.* 1852, p. 149.

Lamprocolius bispecularis, *Hartl. J. f. O.* 1859, p. 19; *Bocage, Orn. Angola*, p. 311 (1881); *Souza, Jorn. Lisb.* 1887, p. 57.

Juida phœnicoptera, *Gurney, Ibis*, 1860, p. 210.

Lamprocolius decoratus, *Hartl. Ibis*, 1862, p. 148; *id. Abhandl. nat. Ver. Bremen*, iv. p. 69 (1874).

Lamprocolius phœnicopterus, *Gurney, P. Z. S.* 1864, p. 7; *Mont. P. Z. S.* 1865, p. 92; *Gurney in Anderss. B. Dam.-Ld.* p. 160 (1872); *Reichen. J. f. O.* 1877, p. 26.

Lamprocolius nitens (*nec L.*), *Bocage, Jorn. Lisb.* 1867, pp. 138, 334.

Juida decorata, *Layard, B. S. Afr.* p. 171 (1867); *Gray, t. c.* p. 24, no. 6343 (1870).

Juida bispecularis, *Gray, Hand-l. B.* ii. p. 24, no. 6342 (1870).

Adult male. Similar to *L. phœnicopterus* but decidedly smaller, the wing measuring 4·9–5·35, and differing in the more steel-green colour of the back and wings: "bill, legs, and toes more or less black; iris bright reddish orange" (*C. J. Andersson*); "iris orange-yellow" (*J. Anchieta*).

This is nothing but a small race of *L. phœnicopterus*, and, as it varies greatly in size, like that species, it is quite possible that the two forms may be found to run completely into each other. Capt. Shelley thinks that this is the *Lamprocolius nitens* (Linn.), founded on "Le Merle vert d'Angola" of Brisson. It is so much a matter of uncertainty, however, that I think, with Professor Bocage, that this old name had better be dropped altogether.

Hab. Interior of South Africa from Natal to the Transvaal, and on the west coast to Damara Land, Benguela, and Angola.

| | | |
|------------------|--|--|
| a. Ad. sk. | South Africa. | Sharpe Coll. |
| b. Ad. sk. | South Africa (<i>Butler</i>). | Shelley Coll. |
| c. Ad. sk. | South Africa (<i>E. L. Layard</i>). | Sharpe Coll. (Type cf <i>L. decoratus</i> .) |
| d, e, f. Ad. sk. | Durban, Natal (<i>T. L. Ayres</i>). | Shelley Coll. |
| g, h, i. Ad. sk. | Durban (<i>Gordge</i>). | Shelley Coll. |
| k. ♂ ad. sk. | Natal. | Dr. Gueinzus [C.]. |
| l. ♂ ad. sk. | Natal, May 22, 1873 (<i>T. E. Buckley</i>). | Shelley Coll. |
| m. ♀ ad. sk. | Swaziland, July 23, 1876 (<i>T. E. Buckley</i>). | Shelley Coll. |

| | | |
|-------------------------|--|-------------------------------------|
| n. ♀ ad. sk. | Crocodile River, Transvaal,
Nov. 8, 1872 (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |
| o. ♂ ad. sk. | Crocodile River, Nov. 17, 1873
(<i>T. E. Buckley</i>). | Shelley Coll. |
| p. Ad. sk. | Marico, Nov. 18, 1873 (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |
| q. ♂ Ad. sk. | Tati, Oct. 11, 1873 (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |
| r. Ad. ; s. Juv.
sk. | Otjimbingue, Damara-Land,
May, Aug. (<i>C. J. Andersson</i>). | Sharpe Coll. |
| t. Ad. sk. | Benguela. | Monteiro Coll. |
| u. Ad. sk. | Capangombe (<i>Anchieta</i>). | Sharpe Coll. |
| v. Ad. sk. | Ambaca (<i>Anchieta</i>). | Sharpe Coll. |
| w. Ad. sk. | Ambaca (<i>Anchieta</i>). | Shelley Coll. |
| x. Ad. sk. | Angola (<i>Toulson</i>). | Shelley Coll. |

11. *Lamprocolius melanogaster*.

- Lamprotornis melanogaster*, *Swains. Anim. in Menag.* p. 207 (1837); *Finsch, J. f. O.* 1867, p. 247.
- Juida melanogaster*, *Gray, Gen. B.* ii. p. 327 (1846); *Gurney, Ibis*, 1862, p. 29; *Layard, B. S. Afr.* p. 173 (1867); *Gray, Hand-l. B.* ii. p. 224, no. 6330 (1870).
- Lamprotornis porphyroplevron*, *Sunder. Œfo. K. Vet.-Akad. Forh. Stockh.* 1850, p. 100.
- Lamprocolius coruscans*, *Bp. Consp. i.* p. 115 (1850, *ex Licht.*); *Licht. Nomencl. Av. Berol.* p. 53 (1854).
- Lamprocolius melanogaster*, *Bp. Consp. i.* p. 115 (1850); *Hartl. Orn. W.-Afr.* p. 119 (1857); *Grill, Zool. Anteckn.* p. 37 (1859); *Hartl. J. f. O.* 1859, p. 22; *id. Ibis*, 1862, p. 148; *Finsch & Hartl. Vög. Ostaf.* p. 381 (1870); *Sharpe, Cat. Afr. B.* p. 55 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 72 (1874); *Shelley, Ibis*, 1875, p. 78; *Fischer & Reichen. J. f. O.* 1878, p. 261; *id. J. f. O.* 1879, p. 304; *Fischer, t. c.* p. 280; *Gurney, Ibis*, 1881, p. 127; *Shelley, P. Z. S.* 1881, p. 583; *Fischer, Zeitschr. ges. Orn.* i. p. 335 (1884); *Sharpe, ed. Layard's B. S. Afr.* p. 428 (1880).
- Lamprocolius porphyroplevron*, *Licht. Nomencl. Av. Berol.* p. 53 (1854).
- Lamprotornis purpureoptera* (*nec Rüpp.*), *Bianc. Spec. Zool. Mosamb., Aves*, p. 322 (1865).

with coppery bronze, more distinct on the sides of body and flanks; thighs and under tail-coverts dull black, glossed with purple; under wing-coverts and axillaries black, edged with purplish blue; quills below black, ashy blackish along the edge of the inner web; bill and feet black: "iris golden yellow" (*G. E. Shelley*). Total length 8 inches, culmen 0·75, wing 4·35, tail 3·3, tarsus 1.

Some males in winter plumage, when the colours are brightest, have a steel-green shade overspreading the back and eclipsing the purple shade. This seems to occur directly the plumage begins to wear; at least I judge this to be the case from a young moulting specimen, in which the fresh dorsal plumage appears to be purplish rather than green.

In October before the breeding-season, the plumage is very much duller, and gradually becomes more so as the nesting progresses.

Adult female. Much duller than the males and with the brilliant colouring obscured, especially underneath, where the lower breast and abdomen have no bronzy lustre, but are dull smoky blackish. Total length 7·3 inches, culmen 0·7, wing 4, tail 2·9, tarsus 0·9.

I can see no difference in females killed in July and October.

Young birds are much duller than the adults, all the glossy plumage being dusky with very little lustre; the lower breast and abdomen, as well as the sides of the body and flanks, sooty blackish, with scarcely any gloss whatever and showing none of the bronzy lustre of the adult birds.

Hab. From South-eastern Africa to the Mombasa district in East Africa.

| | | |
|---|--|-----------------------|
| <i>a.</i> Ad. sk. | Kingwilliamstown. | Capt. Trevelyan [C.]. |
| <i>b.</i> ♀ ad. sk. | Kingwilliamstown, Nov. 12, 1884 (<i>C. Newby</i>). | Shelley Coll. |
| <i>c.</i> Ad. st. | Natal. | Purchased. |
| <i>d.</i> ♂ ad. sk. | Natal. | Dr. Gueinzus [C.]. |
| <i>e, f, g, h, i.</i> ♂ ad. et juv. sk. | Durban, July, Nov. (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>k.</i> ♂ imm. sk. | Durban, March 26, 1874 (<i>G. E. S.</i>). | Shelley Coll. |
| <i>l, m.</i> ♂ ad. et juv.; <i>n, o.</i> ♀ imm. sk. | Pinetown, Natal, March, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>p, q.</i> Ad.; <i>r, s.</i> Juv. sk. | Lamo, Zanzibar district (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>t, u.</i> Ad. sk. | Pangani River (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>r, w, x.</i> Ad.; <i>y, z, a'.</i> Imm. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>b'.</i> ♂ ad. sk. | Wito, Nov. 19, 1877 (<i>G. A. Fischer</i>). | Shelley Coll. |
| <i>c'.</i> Ad. sk. | Mombasa. | Rev. A. Buxton [P.]. |

12. *Lamprocolius purpureiceps*.

Lamprocolius purpureiceps, *J. E. Verr. Rev. et Mag. de Zool.* 1851, p. 418; *Strickl. Contr. Orn.* 1851, p. 133; *Hartl. Orn. W.-Afr.* p. 119 (1857); *Cass. Proc. Philad. Acad.* 1857, p. 30; *Hartl. J. f. O.* 1859, p. 24; *Cass. Proc. Philad. Acad.* 1859, p. 133; *Sharpe, P. Z. S.* 1871, p. 611; *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 73 (1874); *Reichen. J. f. O.* 1875, p. 30.
Juida purpureiceps, *Gray, Hand-l. B.* ii. p. 24, no. 6335 (1870).
Lamprocolius cupreicaudus (pt.), *Sharpe, Cat. Afr. B.* p. 55 (1871).

Adult. General colour above glossy golden green; scapulars like the back, but with a slight shade of steel-green; lower back and rump like the mantle, but not quite so golden; upper tail-coverts black, edged with steel-blue, with a subterminal shade of bronzy purple; wing-coverts steel-blue; quills purplish black, externally steel-blue, the inner secondaries washed with golden green like the back; tail-feathers blue-black, externally washed with golden bronze; crown of head velvety purple with a slight shade of violet-blue, the nape showing a distinct appearance of steel-blue; hind neck glossy steel-green; lores black; feathers round eye, sides of face, and ear-coverts purple, a little duller than the head; cheeks, throat, and chest purple, slightly varied with violet-blue, becoming much more distinct on the latter; breast, abdomen, sides of body, and flanks steel-green, with a slight wash of golden green; thighs and under tail-coverts black, washed with steel-blue; under wing-coverts and axillaries black, edged with bright steel-blue; quills below black. Total length 7·8 inches, culmen 0·75, wing 4·6, tail 2·55, tarsus 0·9.

Hab. West Africa from the Cameroons to the Congo.

| | | |
|-------------|---|----------------------------|
| a. Ad. sk. | Landana, Congo (<i>Petit</i>). | Shelley Coll. |
| b. Ad. st. | Gaboon. | M. Verreaux. |
| c. Ad. sk. | Gaboon (<i>P. B. Du Chaillu</i>). | Sharpe Coll. |
| d. Ad. sk. | Gaboon (<i>P. B. Du Chaillu</i>). | Tweeddale Coll. |
| e. Ad. sk. | River Ogowè, Gaboon. | H. T. Ansell,
Esq. [P.] |
| f. Juv. sk. | Cameroons. | Sharpe Coll. |
| g. Ad. sk. | Cameroons, Jan. 20, 1871 (<i>Crossley</i>). | Sharpe Coll. |
| h. Ad. sk. | Cameroons, Jan. 19, 1871 (<i>Crossley</i>). | Shelley Coll. |

blue, purple on the throat and chest: "bill and feet black; iris golden yellow" (*Stampfli*). Total length 6·7 inches, culmen 0·65, wing 4·7, tail 2·7, tarsus 0·9.

Hab. West Africa from the Gold Coast to Liberia.

| | | |
|--------------------------|--------------------------------------|----------------|
| <i>a, b, c, d.</i> Ad. ; | Fantee (<i>Kirby</i>). | Shelley Coll. |
| <i>e.</i> Imm. sk. | | |
| <i>f-i.</i> Ad. ; | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| <i>k.</i> Juv. sk. | | |
| <i>l.</i> Ad. sk. | Ashantee. | J. Gould, Esq. |
| <i>m.</i> Ad. sk. | Wasa, July 1872 (<i>Blissett</i>). | Sharpe Coll. |
| <i>n.</i> Ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |

35. COCCYCOLIUS.

Coccycolius, *Oustalet*, *N. Arch. Mus.* (2) ii. p. 155 (1879) Type. *C. iris*.

Range. Loss Islands, Senegambia.

1. *Coccycolius iris*.

Coccycolius iris, *Oustalet*, *Bull. Assoc. Scient. France*, no. 180, p. 158 (1878); *id.* *N. Arch. Mus.* (2) ii. p. 155, pl. 7 (1879).

Adult. Golden green; the cheeks, ear-coverts, and abdomen purple; bill elongated, the culmen gently incurved, and the feet (which are short) black. Having the aspect of a Golden Cuckoo, but the size a little larger. (*Oustalet*.)

Hab. Loss Islands.

36. HETEROPSAR.

Range. Somali-Land in East Africa and Benguela in South-west Africa.

Key to the Species.

- a.* Head glossy green like the back; underneath uniform glossy green *acuticaudus*, p. 185.
b. Head white, forming a cap; underneath streaked with white *albicapillus*, p. 186.

1. *Heteropsar acuticaudus*.

Lamprocolius acuticaudus, *Bocage*, *Jorn. Lisb.* 1870, p. 345, 1877, p. 156; *Sharpe*, *Cat. Afr. B.* p. 56 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 66 (1874); *Bocage*, *Orn. Angola*, p. 309, pl. vi. (1881); *Sharpe*, ed. *Layard's B. S. Afr.* p. 427 (1884).
Juida acuticauda, *Gray*, *Hand-l. B.* ii. p. 24, no. 6346 (1870).

Adult male. General colour above uniform glossy oil-green, with a very slight steel-blue reflexion on the rump and upper tail-coverts; wing-coverts oil-green like the back, the inner lesser and median coverts coppery red, with steel-blue reflexions on the edges forming a shoulder-patch; both the median and greater

with a subterminal spot of velvety black; bastard-wing, primary-coverts, and quills blackish, externally glossed with steel-green or steel-blue, the secondaries externally oil-green like the back; tail-feathers steel-blue, with greenish reflexions; the tail strongly graduated; head and neck glossy oil-green, including the sides of the neck and under surface of the body; lores velvety black; ear-coverts dark steel-blue, the feathers rather frizzled; sides of body and flanks steel-blue, contrasting with the rest of the under surface; thighs also steel-blue; under tail-coverts oil-green; under wing-coverts and axillaries blackish, edged with steel-blue, the edge of the wing greener; quills below blackish, browner along the inner edge: "bill and feet black; iris orange" (*J. Anchieta*). Total length 10 inches, culmen 0·85, wing 5, tail 5, tarsus 1·05.

Adult female. Similar to the male. Total length 9·8 inches, culmen 0·85, wing 4·95, tail 3·7, tarsus 1·1.

Young. Brown, with an oil-green gloss above, steel-green on the tail and wings, the coverts and quills with small whity-brown tips; under surface of body earthy brown, the throat and breast with small mesial streaks of whity brown, all the feathers of the breast and abdomen rather broadly edged with the latter colour: "iris brownish" (*Anchieta*).

Hab. Benguela.

| | | |
|-----------------------------|---|----------------|
| a. ♂ ad.; b. Juv. sk. | Caconda, Benguela, Jan. 1869
(<i>J. Anchieta</i>). | Sharpe Coll. |
| c, d. ♂ ♀ ad. sk. | Caconda, Jan. 1882 (<i>J. A.</i>). | Lisbon Museum. |
| e. ♂ ad.; f, g.
Imm. sk. | Caconda, July, Aug., Nov.
(<i>J. A.</i>). | Shelley Coll. |

2. *Heteropsar albicapillus*.

Spreo albicapillus, *Blyth, J. A. S. Beng.* xxiv. p. 301 (1855); *Hartl. Orn. W.-Afr.*, App. p. 276 (1857).

Notauges albicapillus, *Hartl. J. f. O.* 1859, p. 28; *Speke, Ibis*, 1860, p. 246, pl. vii.; *Heugl. J. f. O.* 1863, p. 23, 1869, p. 10; *id. Orn. N.O.-Afr.* p. 520 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 379 (1870); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 85 (1874); *Shelley, Ibis*, 1885, p. 413.

grey; under surface of body dusky greyish brown, with a gloss of metallic green here and there, all the feathers longitudinally centred with white, giving a distinct striped appearance; lower abdomen, thighs, and under tail-coverts creamy white, as well as the under wing-coverts and axillaries: bill and feet black; iris white" (*J. Spots*). Total length 1½ inches, culmen 1-1, wing 5-5, tail 4-5, tarsus 1-5. «*Mrs. E. Lorr Phillips*»

Hol. Smalā-Lawī

37. SPREO.

| | |
|---|---------------------|
| <i>Spreo</i> , <i>Less. Pouet</i> , p. 417, 1831 | Type |
| <i>Nocunys</i> , <i>Cab. Mus. Hist. Nat.</i> , p. 100, (1839) | <i>S. hirsuta</i> . |
| | <i>S. hirsuta</i> . |

Reapt. Continued to Africa

Key to the Species.

- a. Throat bronzy brown, not metallic: abdomen and under tail-coverts white or creamy buff
 - a'. Size much larger: breast brown like the throat and throat: secondaries brown *hirsuta*, p. 187.
 - a". Size much smaller: breast and abdomen both white: inner secondaries metallic green *fulviventris*, p. 188.
- b. Throat metallic green or blue: belly chestnut
 - b'. Under tail-coverts white across the chest & white band: under wing-coverts white *superba*, p. 189.
 - b". Under tail-coverts chestnut
 - b'". Back purplish blue: wing-coverts with velvety-black spots: head purplish blue as well as the throat: under wing-coverts evenly or chestnut *indohirsuta*, p. 190.
 - b'". Under edge of wing green: breast evenly chestnut *challengeri*, p. 191.
 - b'". Back green like the throat and breast: all velvety-black spots in the wing-coverts: head bronzy brown *purcheri*, p. 191.

1. *Spreo hirsuta*.

- Le Merle brun du Cap de Bonne Espérance*, *Mus. Hist. Nat. Cap.* ii. p. 417, 1775.
- White-crimped Parula*, *Lach. Gen. Syn.* ii. p. 24, 1793.
- Parula nectar*, *Gen. & N.* p. 355, 1799.
- Le sprin*, *Less. Pouet* i. p. 417, 1831; *Sp. Comp.* i. p. 514, 1831.
- Parula hirsuta*, *Less. Pouet* i. p. 417, 1831.
- Lamprolaima nectar*, *Less. Pouet* i. p. 417, 1831.
- Lamprolaima ulucentia*, *Less. Pouet* i. p. 417, 1831.
- Spreo hirsuta*, *Less. Pouet*, p. 417, 1831; *Sp. Comp.* i. p. 514, 1831; *Cunningham in Aud. B. Linn. Ed.* p. 141, 1832; *Buller, Fauna & Res. Zool.* p. 250; *Ellis & Van Pol. Bosc.* *Gen. Synops.* p. 112, 1832; *Sharpe, St. Leger & B. & L.* pp. 423, 543 (1875); *Symonds, Hist.* p. 331.

- Juida bicolor*, Gray, *Gen. B.* ii. p. 327 (1846); *Layard, B. S. Afr.* p. 172 (1867); *Gurney, Ibis*, 1868, pp. 46, 465, *Gray, Hand-l. B.* ii. p. 25, no. 6352 (1870).
Notauges bicolor, *Cab. Mus. Hein.* i. p. 198 (1850); *Grill, Zool. Anteckn.* pp. 10, 57 (1859); *Hartl. J. f. O.* 1859, p. 27; *id. Abhandl. nat. Ver. Bremen*, iv. p. 88 (1874).
Amydrus bicolor, *Sharpe, Cat. Afr. B.* p. 55 (1871); *Buckley, Ibis*, 1874, p. 378; *Shelley, Ibis*, 1875, p. 78; *Sharpe, App. Oates Matabele-Land*, p. 316 (1881).

Adult male. General colour above bronzy brown, with a distinct gloss of green under certain lights, especially on the head and hind neck, upper tail-coverts, and lesser wing-coverts; median and greater wing-coverts and quills with a bronzy purplish gloss, the primary-coverts and primaries externally washed with a green gloss; tail-feathers glossy oil-green, the centre ones with a steel-green gloss; sides of head and under surface of body bronzy brown, with a slight purplish gloss and a more distinct green gloss on the throat; abdomen and under tail-coverts white; under wing-coverts like the breast; quills light brown below: "bill yellow, with the upper mandible and the end of the lower mandible black; legs black; iris pale yellow" (*G. E. Shelley*). Total length 9 inches, culmen 0.9, wing 5.55, tail 3.45, tarsus 1.45.

Adult female. Similar to the male. Total length 9.5 inches, culmen 1, wing 5.8, tail 3.7, tarsus 1.45.

Young birds, according to Captain Shelley, have the pale portion of the bill buff. In adult birds the gape and the tongue are yellow and, as he points out, the gape has a slight wattle.

Hab. South Africa.

- | | | |
|-------------------|--|------------------------------------|
| a, b. ♂ ♀ ad. sk. | Cape Town, April 1866 (<i>C. J. Anderson</i>). | Sharpe Coll. |
| c. ♂ ad. sk. | Cape Town (<i>Butler</i>). | Shelley Coll. |
| d. ♀ ad. sk. | Caledon, Oct. 13, 1874 (<i>Butler</i>). | Shelley Coll. |
| e, f. Ad. sk. | Ceres, Cape Colony, Jan. 27, 1874 (<i>G. E. S.</i>). | Shelley Coll. |
| g. Ad. sk. | Mossel Bay, April (<i>F. Oates</i>). | W. E. & O. G. Oates, Esqrs. [P. 1] |

2. *Spreo fischeri*.

Notauges fischeri, *Reichen. J. f. O.* 1884, p. 54; *Fischer, Zeitschr. ges. Orn.* i. p. 335, Taf. xx. fig. 1 (1884); *id. J. f. O.* 1885, p. 132.

Adult female. Head, chin, and chest silver-grey, the latter rather darker; lores rather white; under surface of body white; back, wings, and tail entirely pale brown with a silky gloss, the tail-feathers and inner secondaries with a metallic gloss of steel-green: "bill and feet black; iris pale yellow" (*G. A. Fischer*). Total length 6·8 inches, culmen 0·65, wing 4, tail 2·6, tarsus 1·15. (*Fischer & Reichenow.*)

Hab. Paré Mountains, Masai-Land.

3. *Spreo superbus*.

Lamprotornis superbus, *Rüpp. Syst. Uebers.* pp. 65, 75, Taf. 26 (1845); *Heugl. Syst. Uebers.* p. 36 (1856); *Blyth, J. A. S. Beng.* xxiv. p. 301 (1855).

Juida superba, *Gray, Gen. B.* ii. p. 327 (1846); *id. Hand-l. B.* ii. p. 25, no. 6354 (1870).

Lamprocolius superbus, *Bp. Consp.* i. p. 416 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 547 (1856).

Notauges superbus, *Cab. Mus. Hein. Th.* i. p. 198, note (1850); *Hartl. J. f. O.* 1859, p. 25; *Speke, Ibis*, 1860, p. 245; *Heugl. J. f. O.* 1863, p. 22, 1869, p. 7; *Cab. in Von der Decken's Reis., Vög.* p. 33 (1869); *Heugl. Orn. N.O.-Afr.* ii. p. 517 (1870), iv. p. cxxvi (1871); *Fisch & Hartl. Vög. Ostaf.* p. 378 (1870); *Sharpe, Cat. Afr. B.* p. 54 (1871); *Hartl. Abhandl. nat. Ver. Bremen*, iv. p. 80 (1874); *Cab. J. f. O.* 1878, p. 233; *Shelley, P. Z. S.* 1881, p. 583; *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 106 (1881); *Böhm, J. f. O.* 1883, p. 195; *Schalow, t. c.* p. 360; *Fischer, Zeitschr. ges. Orn.* i. p. 335 (1884); *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 199 (1884); *Fischer, J. f. O.* 1885, p. 132; *Shelley, Ibis*, 1885, p. 412; *Reichen. J. f. O.* 1887, p. 66; *Gigl. Ann. Mus. Civic. Genov.* (2) iv. p. 28 (1888); *Salvad. t. c.* p. 298 (1888).

Adult. Above glossy steel-blue, the scapulars and wings glossy oil-green, with velvety-black spots at the ends of the median and greater wing-coverts; the bastard-wing, primary-coverts, and primaries glossed with steel-blue externally; tail-feathers steel-blue with a shade of violet, all but the centre ones blackish along the edge of the inner web and at the tips; crown of head dusky black with an oily-green gloss; lores, sides of face, cheeks, and ear-coverts black, with a gloss of reddish bronze on the latter; throat and fore neck glossy steel-blue; breast white, forming a band; lower breast, abdomen, sides of body, flanks, and thighs rich orange-chestnut; vent and under tail-coverts white; under wing-coverts and axillaries white; edge of wing glossy steel-green; quills blackish below: "bill and feet black; iris pearly or milky white" (*Antinori*); "iris clear sulphur-yellow" (*Hildebrandt*); "iris pale yellow; inside of mouth clear yellow; feet lead-colour" (*G. A. Fischer*). Total length 7·6 inches, culmen 0·8, wing 4·9, tail 2·7, tarsus 1·2.

Young. Like the adult, but with the colours less resplendent (*Salvadori*): "iris greyish yellow" (*G. A. Fischer*).

Hab. From the Upper Soudan to Shoa and as far as the Zanzibar region in East Africa.

| | | |
|------------------|--|-------------------|
| a. Ad. st. | Shoa. | Dr. Rüppell [C.]. |
| b. Ad. sk. | Shoa. | Dr. Rüppell [C.]. |
| c. ♂ ad. sk. | Alia Amba, Shoa, Feb. 1842
(<i>Sir W. C. Harris</i>). | India Museum. |
| d. Ad. sk. | Soudan (<i>Knoblecker</i>). | Sharpe Coll. |
| e, f, g. Ad. sk. | Ugogo (<i>Sir J. Kirk</i>) | Shelley Coll. |
| h. Ad. sk. | Masai-Land (<i>J. Thomson</i>). | Shelley Coll. |

4. *Spreo hildebrandti*.

Notauges hildebrandti, *Cab. J. f. O.* 1878, p. 233, pl. iii. fig. 1;
Fischer, J. f. O. 1885, p. 132; *Reichen. J. f. O.* 1887, p. 60.

Adult male. General colour above metallic purplish blue; upper tail-coverts with subterminal bars of velvety black; lesser and median wing-coverts like the back, the latter with a broad subterminal spot of velvety black; the scapulars similarly marked; greater coverts metallic oil-green, steel-blue at the ends, with a broad subterminal spot of velvety black; bastard-wing, primary-coverts, and quills dusky blackish, externally steel-green, the secondaries more oily-green, with a slight shade of steel-blue at the ends; tail-feathers steel-green, with indications of dusky bars under certain lights; crown of head glossy purplish blue; hind neck and sides of neck metallic bronzy oil-green; lores velvety black; sides of face, ear-coverts, cheeks, throat, and fore neck glossy purplish blue; chest and breast tawny rufous, paler and inclining to creamy buff on the sides of the latter; abdomen, flanks, thighs, and under tail-coverts deep chestnut; under wing-coverts and axillaries tawny buff; quills below dusky blackish: "bill and feet black; iris dark orange-red" (*Hildebrandt*). Total length 7.5 inches, culmen 0.7, wing 4.45, tail 2.7, tarsus 1.25.

Hab. East Africa, in the Mombasa district.

6. *Spreo pulcher*.

L'Oranvert ou Merle à ventre orangé du Sénégal, *Montb. Hist. Nat. Ois.* iii. p. 377 (1775).

Merle à ventre orangé du Sénégal, *Daub. Pl. Enl.* iv. pl. 358.

Turdus pulcher, *P. L. S. Müll. Syst. Nat. Suppl.* p. 139 (1776);

Cass. Proc. Philad. Acad. 1864, p. 249.

Orange-bellied Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 63 (1783).

Turdus erythrogaster, *Bodd. Tabl. Pl. Enl.* p. 22 (1783).

Turdus chrysogaster, *Gm. Syst. Nat.* i. p. 385 (1788).

Lamprotornis chrysogaster, *Licht. Verz. Doubl.* p. 18 (1823).

Lamprotornis rufiventris, *Rüpp. Neue Wirb.* p. 27, pl. xi. fig. 1 (1835-40); *Swains. B. W. Afr.* i. p. 151 (1837); *Rüpp. Syst. Uebers.* p. 75 (1845).

Juida erythrogastra, *Gray, Gen. B.* ii. p. 327 (1846).

Juida rufiventris, *Gray, t. c.* p. 327 (1846); *Luyard, B. S. Afr.* p. 171 (1867).

Lamprocolius chrysogaster, *Bp. Consp.* i. p. 415 (1850); *Hartert, J. f. O.* 1886, p. 586.

Notauges chrysogaster, *Cab. Mus. Hein.* i. p. 198 (1850); *Hartl.*

J. f. O. 1859, p. 26; *Heugl. J. f. O.* 1863, p. 22, 1869, p. 9; *id. Orn.*

N.O.-Afr. ii. p. 518 (1870), iv. *App.* p. cxxvi (1871); *Blanf.*

Geol. & Zool. Abyss. p. 397 (1870); *Finsch, Trans. Z. S.* vii. p. 259

(1870); *Sharpe, Cat. Afr. B.* p. 54 (1871); *Antin. & Salvad. Viagg.*

Bogos, p. 126 (1873); *Hartl. Abhandl. nat. Ver. Bremen*, p. 81

(1874); *Rochebr. Faun. Sénég., Ois.* p. 231 (1884).

Lamprocolius rufiventris, *Hartl. Orn. W.-Afr.* p. 120 (1857);

Brehm, Reis. Habesch, p. 216 (1863); *Antin. Cat. descr. Ucc.* p. 61 (1864).

Lamprotornis cinereiceps, *Pr. Württ. MSS.*; *Heugl. J. f. O.* 1867, p. 294.

Juida pulchra, *Gray, Hand-l. B.* ii. p. 25, no. 6353 (1870).

Adult male. Above metallic green with a slight purplish shade; wing-coverts like the back; quills blackish, externally metallic green, the primaries creamy white for the greater part of the inner web; tail-feathers metallic steel-blue; crown of head, sides of face, and ear-coverts glossy bronzy brown; lores blackish; throat and breast metallic green; lower breast, abdomen, sides of body, thighs, and under tail-coverts rich bay or chestnut; axillaries and under wing-coverts also chestnut, except those near the edge of the wing, which are metallic green; quills creamy white below, with dusky brown ends: "bill dusky; feet leaden blackish; iris pale yellow" (*Heuglin*). Total length 8 inches, culmen 0·8, wing 4·45, tail 2·4, tarsus 1·3.

Adult female. Like the male. Total length 7·5 inches, culmen 0·75, wing 4·4, tail 2·6, tarsus 1·25.

Young. Differs from the adult in being altogether duller and browner, with metallic green wings and tail; the throat and breast brown; the abdomen rufous; the bill yellow.

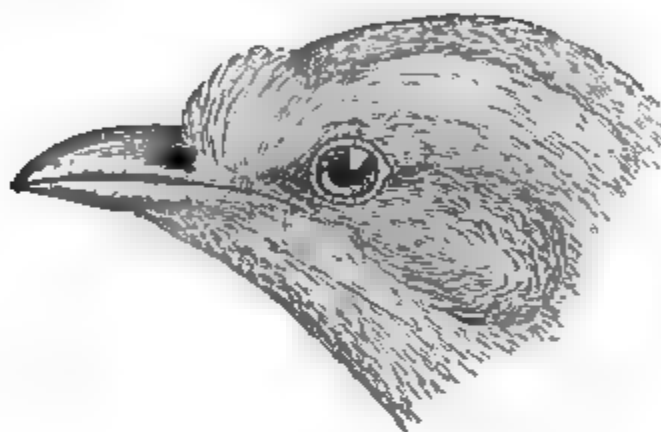
Hab. N.E. Africa, reaching to the Niger district and Senegambia.

| | | |
|--------------|-------------------------------|----------------------------|
| a. Ad. st. | Abyssinia. | Dr. Rüppell [C.]. |
| b. Ad. sk. | Abyssinia. | Zoological Society. |
| c. ♀ ad. sk. | Anseba Valley, July 23, 1868. | W. T. Blanford, Esq. [C.]. |

| | | |
|-------------------------|---|------------------------------|
| d. ♂ ad. sk. | Ailet, June 24, 1868. | W. T. Blanford, Esq.
[C]. |
| e. ♂ ad. sk. | Ailet, June 25, 1868 (<i>W. Jesse</i>). | Tweeddale Coll. |
| f. ♂ ad.; g. ♂ imm. sk. | Waliko, July 24 (<i>W. Jesse</i>). | Tweeddale Coll. |
| h. Ad. sk. | Bejook (<i>Esler</i>). | Sharpe Coll. |
| i. Ad. sk. | Gabea (<i>Esler</i>). | Shelley Coll. |
| k. ♂ ad. sk. | Below Khartoum, Oct. 1861. | Consul Petherick
[C]. |
| l. Ad. sk. | Senegambia. | Shelley Coll. |
| m. Juv. sk. | Senegambia. | Sharpe Coll. |

38. ENODES.

Enodes, *Temm. Pl. Col. i. Tabl. Méth.* p. 108 (1838).. ^{Type.} *E. erythrophrys*.



Head of *Enodes erythrophrys*.

Range. Confined to Celebes.

1. *Enodes erythrophrys*.

Lamprotornis erythrophrys, *Temm. Pl. Col. ii. pl.* 267 (1824).
Enodes erythrophrys, *Temm. Pl. Col. i. Tabl. Méth.* p. 108 (1838);
Blyth, Cat. B. Mus. As. Soc. p. 111 (1849); *Bp. Conspectus* i. p. 417
 (1850); *Wallace, Ibis*, 1860, p. 141; *Walden, Trans. Z. S.* viii.
 p. 78 (1874); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 77
 (1876); *Meyer, Ibis*, 1879, p. 184.
Calornis erythrophrys, *Gray, Gen. B.* ii. p. 327 (1846); *id Hand-l.*
B. ii. p. 27 (1870).

slaty grey; lower abdomen, flanks, vent, and under tail-coverts golden yellow; thighs slaty grey; under wing-coverts and axillaries dull ashy, edged with olive-yellow; quills below dusky, ashy along the inner edge. Total length 11 inches, culmen 0.75, wing 4.4, tail 4.4, tarsus 1.1.

Hab. Celebes.

| | | |
|-----------------|--------------------|-----------------|
| a, b. Ad. sk. | Celebes. | Gould Coll. |
| c. Ad. sk. | N. Celebes. | Tweeddale Coll. |
| d. Ad. sk. | Menado. | Tweeddale Coll. |
| e, f. ♂ ad. sk. | Tondano. | Wallace Coll. |
| g. Ad. sk. | Tondano. | Wallace Coll. |
| h. Ad. sk. | Tondano (Wallace). | Gould Coll. |

39. SCISSIROSTRUM.

Scissirostrum, *Lafr. Rev. Zool.* 1845, p. 83 ^{Type.} *S. dubium*.

Range. Confined to Celebes.

1. *Scissirostrum dubium*.

Dubious Shrike, *Lath. Gen. Syn. Suppl.* p. 72 (1801).

Lanius dubius, *Lath. Ind. Orn. Suppl.* ii. p. xviii (1801).

Scissirostrum pagai, *Lafr. Rev. Zool.* 1845, p. 83; *id. Mus. de Zool.* 1845, pl. 59; *Gray. Gen. B.* ii. p. 82 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 119 (1849); *Bp. Comp.* i. p. 426 (1850); *Wallace, Ibis*, 1860, p. 141; *Finch. New-Guinea*, p. 174 (1895); *Wall. Malay Arch.* i. p. 430 (1895).

Scissirostrum dubium, *Gray. Hand-l. B.* i. p. 27, col. 656 (1870); *Walden, Tr. Z. S.* vii. p. 51 (1874); *Trappes, A. Audouin and Ver. Bremen*, v. p. 78, Taf. iii. fig. 11, 12 (1875); *Meyer. Linn.* 1876, p. 146; *id. Abhand. Vogelst.* p. xxix (1882); *Bischoff, Indisch-nes Orn.* iii. p. 136 (1896).

Adult male. General colour above slaty grey; rump and upper tail-coverts blackish; each feather with a wax-like, iridescent tinge of crimson; lower wing-coverts dark slaty grey; under tail-coverts, innermost wing-coverts, innermost wing, primary-coverts, and quills dusky, with a greenish gloss on the margins; tail-feathers dark, externally glossed with greenish black; lower al. coverts and under surface of the body slaty grey; throat at base of beak, inner and axill. slaty blackish; flanks with a few crimson-spotted feathers; tibiae and under tail-coverts slaty blackish; under wing-coverts and axillaries dark slaty grey; quills below dusky, ashy along the inner edge. Total length 11 inches, culmen 0.75, wing 4.4, tail 4.4, tarsus 1.1.

Adult female. Similar to the male. Total length 10 inches, culmen 0.75, wing 4.4, tail 4.4, tarsus 1.1.

Hab. Celebes: Tuguei Island.

| | | |
|--------------------|---------|-----------------|
| a, b. Ad. sk. | Celebes | Tweeddale Coll. |
| c, d. Ad. sk. | Menado | Gould Coll. |
| e. Ad. (Imm.) g. ♂ | Tondano | Wallace Coll. |
| f. Ad. sk. | | |
| h. ♂ ad. sk. | Menado | Wallace Coll. |
| 1891. 2115. | | |

Whilst the previous sheets were passing through the press, the Museum has been so fortunate as to procure from M. A. Boncard the specimen of *Fregilupus varius* which was formerly in the Riocour collection. I find that this genus comes very close to *Basileornis*, but differs in its much longer and more convex bill, its more exposed nostrils, and in the long crest which commences at the base of the bill.

40. FREGILUPUS.

| | |
|--|--------------------|
| | Type. |
| <i>Fregilupus</i> , Less. <i>Traité</i> , p. 324 (1831)..... | <i>F. varius</i> . |
| <i>Lophopsarus</i> , Sander. <i>Av. Meth. Tent.</i> p. 40 (1872) | <i>F. varius</i> . |

Range. Confined to the island of Réunion.

1. *Fregilupus varius*.

- Huppe du Cap de Bonne Espérance, *Daubent. Pl. Ent.* vi. pl. 697.
 La Huppe noire et blanche du Cap de Bonne Espérance, *Montb. Hist. Nat. Ois* vi p. 403 (1779).
 Madagascar Hoopoe, *Luth. Gen. Syn.* ii. pt. i. p. 690 (1783).
Upupa varia, *Bodd. Tabl. Pl. Ent.* p. 43; *Gray, Gen. B.* ii. p. 80 (1847).
Upupa capensis, *Gm. Syst. Nat.* i. p. 406 (1788).
 La Huppe grise, *Audeb. et Vieill. Ois. Dor., Promerops*, p. 15, pl. 111 (1802).
 Le Merops huppé, *Levaill. Hist. Nat. Promerops*, p. 43, pl. 18 (1806).
Upupa madagascariensis, *Shaw, Gen. Zool.* viii pt. i. p. 140 (1812).
Coracia cristata, *Vieill. N. Dict. d'Hist. Nat.* viii p. 3 (1817).
Pastor upupa, *Wagler, Syst. Av. Pastor*, sp. 13 (1827).
Fregilupus capensis, Less. *Traité*, p. 324 (1831); *Bp. Consp.* i. p. 88 (1858).
Fregilupus madagascariensis, *Reichenb. Handb. Scans.* p. 321, Taf. dxcvi. fig. 4030 (1851); *Hartl. Orn. Beitr. Faun. Madag.* p. 53 (1861); *Schl. & Poll. Hist. Nat. Madag.* p. 104 (1868); *Murie, P. Z. S.* 1873, p. 200.
Fregilupus borbonicus, *Vinson, Bull. Soc. d'Acclim.* 1868, p. 627.
Lophopsarus varius, *Sander. Av. Meth. Tent.* p. 40 (1872).
Fregilupus varia, *Gray, Hand-l. B.* ii. p. 28, no. 6398 (1870).
Fregilupus varius, *Murie, P. Z. S.* 1874, p. 474, pls. 61, 62; *A. Newton, P. Z. S.* 1875, p. 41; *Hartl. Vog. Madag.* p. 203 (1877); *Sharpe, Nature*, xl. p. 177 (1889).

Adult. General colour above ashy brown, the lower back, rump, and upper tail-coverts slightly washed with rufous; wings and tail rather more blackish brown, washed externally with ashy grey; primary-coverts white for the terminal half, with brown tips, forming an alar speculum; head light ashy grey, as also the hind neck, with a beautiful elevated crest, the feathers of which have white shafts; lores and eyebrow white; ear-coverts light ashy grey, like the sides of the neck; cheeks, throat, and under parts white; the flanks pale vinous brown; under wing-coverts and axillaries also white; quills dusky below, ashy along the inner web. Total length 11 inches, culmen 1.25, wing 5.8, tail 4.5, tarsus 1.55. (*Mus. Paris.*)

Young. Browner than the adult and not so grey; the crest also browner, and not nearly so large; otherwise like the adults. (*Mus. Paris.*)

I have described the specimens in the Paris Museum, as the old bird is in splendid condition, and seems to be in brighter plumage than the one recently acquired by the British Museum. It was procured as recently as 1833.

Hab. Island of Réunion; now believed to be extinct.

a. Ad. sk. Réunion. Riocour Coll.

41. NECROPSAR.

Necropsar, Slater, *Phil. Trans.* vol. 168, p. 427 N. rodericanus. Type.

Range. Apparently confined to the island of Rodriguez, where it is now extinct.

1. Necropsar rodericanus.

Necropsar rodericanus, Günther & E. Newton, *Phil. Trans.* vol. 168, p. 427, pl. xlii. figs. A-G (1879).

The sub-fossil remains of this bird are described by Dr. Günther and Sir E. Newton (*l. c.*). The authors observe that the genus must have been very nearly allied to *Fregilupus*, but had not so long or so curved a bill, while it differed in further minor details.

Hab. Rodriguez.

a-g. Skull and various bones. (Rev. H. H. Slater.) Transit of Venus Exped.

Subfamily II. BUPHAGINÆ.

42. BUPHAGA.

Buphaga, Linn. *Syst. Nat.* i. p. 154 (1766) B. africana. Type.

Range. Confined to Africa.

Key to the Species.

- a.* Bill yellow, red at the end; tail-feathers
rufous on the inner web *africana*, p. 195.
- b.* Bill entirely red; no rufous on the inner web
of the tail-feathers *erythrorhyncha*, p. 196.

1. Buphaga africana.

Le Pique-Bœuf, *Briss. Orn.* ii. p. 437, pl. 42. fig. 2 (1760); *Month. Hist. Nat. Ois.* iii. p. 175, pl. xiv. (1775); *Levaill. Ois. d'Afr.* ii. p. 198, pl. 97 (1800); *Sundev. Krit. om Levaill.* p. 35 (1857).

Buphaga africana, Linn. *Syst. Nat.* i. p. 154 (1766); *Daud. Traité*, ii. p. 295 (1800); *Swains. B. W. Afr.* ii. p. 200 (1837); *Gray & Mitch. Gen. B.* ii. p. 332, pl. 82 (1847); *Bp. Comp.* i. p. 423 (1850); *Cab. Mus. Hein. Th.* i. p. 202 (1850); *Strickl. & Schl. Contr. Orn.* 1852, p. 149; *Heugl. Syst. Uebers.* p. 37 (1837); *Hartl. Orn. Westafr.* p. 120 (1857); *Monteiro, P. Z. S.* 1865, p. 94; *Baker, Albert Nyanza*, p. 117 (1866); *Layard, B. S. Afr.* p. 175 (1867); *id. Ibis*, 1869, p. 369; *Gray, Hand-l. B.* ii. p. 23, no. 6319 (1870); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 718

(1870), iv. p. clv (1871); *Ayres, Ibis*, 1871, p. 157; *Sharpe, Cat. Afr. B.* p. 57 (1871); *Gurney in Anders. B. Dam.-Ld.* p. 163 (1872); *Antin. & Salvad. Viagg. Bogos*, p. 124 (1873); *Gurney, Ibis*, 1873, p. 256; *Buckley, Ibis*, 1874, p. 379; *Bocage, Orn. Angola*, p. 299 (1877-81); *Sharpe in Oates' Matabele-Land*, App. p. 316 (1881); *Holub & Pelz. Beitr. Orn. Sudafr.* p. 109 (1882); *Sharpe, ed. Layard's B. S. Afr.* pp. 418, 845 (1884); *Hartert, J. f. O.* 1886, p. 386; *Souzu, Journ. Lib.* xi. p. 165 (1887); *Büttik. Notes Leyden Mus.* p. 72 (1889).

Læ Pique-Bœuf du Sénégal, Daubent. Pl. Enl. ii. pl. 203.

African Bee-eater, *Lath. Gen. Syn.* i. pt. i. p. 350, pl. xii. (1781).

Buphaga erythrorhyncha (nec Stanley), *Antin. Cat. descr. Ucc.* p. 62 (1864); *Salvad. Atti R. Accad. Torino*, v. p. 730 (1870).

Adult female. General colour above brown, the lower back, rump, and upper tail-coverts pale ochreous buff; lesser and median wing-coverts like the back; greater coverts, bastard-wing, primary-coverts, and quills darker and more chocolate-brown; the innermost secondaries lighter brown like the scapulars; centre tail-feathers chocolate-brown, the remainder externally chocolate, internally light chestnut; head and neck all round chocolate-brown, a little darker than the back; remainder of under surface of body ochreous, a little deeper on the sides and slightly washed with brown on the fore neck; under wing-coverts and axillaries, as well as the inner aspect of the quills, chocolate-brown: "bill yellow, the terminal half red; feet black; iris fiery red" (*Emin Pasha*). Total length 9 inches, culmen 0.7, wing 4.7, tail 3.3, tarsus 0.9.

Adult male. Similar to the female.

Hab. Nearly the whole of Africa, excepting the forest-districts of the west coast.

| | | |
|---------------|---|-----------------------|
| a. Ad. sk. | River Gambia. | Shelley Coll. |
| b. Ad. sk. | River Gambia. | Sharpe Coll. |
| c. Ad. sk. | Dakar, Senegal (<i>L. Laglaize</i>). | Tweeddale Coll. |
| d. Ad. sk. | Senegal (<i>d'Einville</i>). | Riocour Coll. |
| e. ♀ ad. sk. | Kibiro, Equatorial Africa, Oct. 8. | Emin Pasha [P.]. |
| f. Ad. sk. | Capangombe, Benguela (<i>Anchieta</i>). | Sharpe Coll. |
| g. Ad. sk. | Benguela. | Monteiro Coll. |
| h, i. Ad. st. | Damara-Land. | C. J. Andersson, Esq. |

Buphaga erythrorhyncha, Temm. *Pl. Col.* ii. pl. 465 (1828); Rüpp. *Neue Wirb., Vög.* p. 23 (1835-40); id. *Syst. Uebers.* p. 76 (1845); Gray, *Gen. B.* ii. p. 332 (1847); Bp. *Consp.* i. p. 423 (1850); Cab. *Mus. Hein.* Th. i. p. 202 (1850); Blyth, *J. A. S. Beng.* xxiv. p. 301 (1855); Heugl. *Syst. Uebers.* p. 37 (1856); Horsf. & Moore, *Cat. B. Mus. E.I. Co.* ii. p. 522 (1856); Hartl. *Orn. W.-Afr.* p. 121 (1857); Heugl. *Ibis*, 1859, p. 342; Speke, *Ibis*, 1860, p. 246; Heugl. *J. f. O.* 1862, p. 304; Gurney, *Ibis*, 1863, p. 328; Brehm, *Reis. Habesch*, pp. 217, 331 (1863); Antin. *Cat. descr. Ucc.* p. 62 (1864); Layard, *B. S. Afr.* p. 175 (1867); Gurney, *Ibis*, 1868, p. 160; Gray, *Hand-l. B.* ii. p. 23, no. 6320 (1870); Heugl. *Orn. N.O.-Afr.* ii. p. 716 (1870), iv. App. p. cliv (1871); Blauf. *Geol. & Zool. Abyss.* p. 401 (1870); Finsch, *Trans. Z. S.* vii. p. 260 (1870); id. & Hartl. *Vög. Ostaf.* p. 384 (1870); Sharpe, *Cat. Afr. B.* p. 57 (1871); Layard, *Ibis*, 1871, p. 106; Antin. & Salvad. *Viagg. Bogos*, p. 124 (1873); Gurney, *Ibis*, 1873, p. 256; Shelley, *Ibis*, 1875, p. 77; Fischer & Reichen. *J. f. O.* 1878, p. 261; Cab. *t. c.* p. 233; Fischer, *J. f. O.* 1879, p. 292; Hartl. *Abhandl. nat. Ver. Bremen*, vii. p. 107 (1881); Butler, Feilden, & Reid, *Zool.* 1882, p. 255; Sharpe, ed. *Layard's B. S. Afr.* pp. 420, 846 (1884); Salvad. *Ann. Mus. Genov.* (2) i. p. 196 (1884); Fischer, *Zeitschr. ges. Orn.* i. p. 334 (1884); id. *J. f. O.* 1885, p. 132; Shelley, *Ibis*, 1885, p. 410; Matschie. *J. f. O.* 1887, p. 154; W. Ayres, *Ibis*, 1887, p. 58; Reichen. *J. f. O.* 1887, p. 67; Gigl. *Ann. Mus. Genov.* (2) vi. p. 29 (1888); Salvad. *t. c.* p. 297 (1888).

Adult. Similar to *B. africana*, but with the bill wholly red, and wanting the rufous colour of the tail: "iris fiery vermilion; bare orbits yellow, below surrounded with lilac; feet greyish dusky" (Heuglin). Total 8.3 inches, culmen 0.7, wing 4.65, tail 3.5, tarsus 0.8.

The sexes are alike in colour.

Young. Similar to the adult, but duller in colour and having a dusky bill.

Hab. Nearly the whole of Africa.

| | | |
|----------------------------|--|-------------------------------|
| a. Ad. sk. | Abyssinia. | Purchased. |
| b. ♂ ad. sk. | Senafé, Tigré, Feb. 23. | W. T. Blanford, Esq.
[C.]. |
| c. Ad. sk. | Ailat, Bogos Land, June 26 (<i>W. Jesse</i>). | Tweeddale Coll. |
| d. ♂ ad. sk. | Ailat, June 29. | W. T. Blanford, Esq.
[C.]. |
| e. Ad. sk. | Ailat (<i>Esler</i>). | Shelley Coll. |
| f. ♂ ad. sk. | Maragaz, July 29 (<i>W. Jesse</i>). | Tweeddale Coll. |
| g, h. ♂ ad. et
juv. sk. | Anseba Valley, July. | W. T. Blanford, Esq.
[C.]. |
| i, k. Ad. sk. | Durban, Natal, March and April
(<i>G. E. S.</i>). | Shelley Coll. |
| l, m. Ad. sk. | Durban (<i>Gordge</i>). | Shelley Coll. |
| n. Ad. sk. | Pinetown, Natal, March 22 (<i>T. L. Ayres</i>). | Shelley Coll. |
| o. ♀ ad. sk. | Swaziland, June 19 (<i>T. E. Buckley</i>). | Shelley Coll. |
| p. ♂ ad. sk. | Kitui, in Ukamba, April. | Dr. Hildebrandt. |
| q, r. ♂ ♀ ad. sk. | Angollala, Shoa, May (<i>Sir W. C. Harris</i>). | India Museum. |

Family III. PLOCEIDÆ.

Key to the Subfamilies.

- A. With the first primary very small and falcate, attenuated towards the end; this first primary never reaching beyond the primary-coverts, and generally falling conspicuously short of the latter 1. *VIDUINÆ*, p. 198.
- B. With the first primary large, generally obtuse at the end, and extending beyond the primary-coverts..... 2. *PLOCEINÆ*, p. 405.

Subfamily I. VIDUINÆ.

Key to the Genera.*

- a. Tail longer than wing, exceeding the latter by more than the length of the tarsus.
- a'. Only the centre tail-feathers elongated.
- a''. Four centre tail-feathers lengthened throughout, not wire-shafted, not widened at the ends 1. *VIDUA*, p. 203.
- b'. Four centre feathers with wire-like shafts, ending in a broadened elongate spatula 2. *TETRÆNUBA*, p. 200.
- c'. All four centre tail-feathers attenuated and shaft-like for their entire length 3. *LINURA*, p. 210.
- d'. Four centre tail-feathers laterally flattened, gradually tapering towards the ends, which finish in a hair-like point 4. *STEGANURA*, p. 211.
- b. All the tail-feathers elongated.
- e'. Tail more than three times the length of the wing, all the tail-feathers

- b.* Tail shorter than the wing.
- a'* Tail square or only slightly rounded or graduated, the two centre feathers not markedly produced beyond the rest; the tail rounded or wedge-shaped, the feathers rarely pointed.
- g''.* With a frill round the neck in the breeding-plumage; possessing a distinct winter plumage; feathering of the body soft and velvety.
- a'''.* Tail nearly square 9. PYROMELANA, p. 227.
- b'''.* Tail distinctly rounded 8. UROBRACHYA, p. 224.
- k''.* With no frill round the neck; no winter plumage.
- c'''.* Nasal orifice placed well in front of the nasal plumes and clearly exposed.
- a⁴.* Bastard primary large and nearly reaching to the end of the primary-coverts 10. PLOCEIPASSER, p. 244.
- b⁴.* Bastard primary small 11. PHILÆTERUS, p. 249.
- d'''.* Nasal orifice nearly or quite hidden by the nasal plumes, which impinge on the base of the nostrils.
- c⁴.* Bill with two indentations near the base of the cutting-edge of the upper mandible 12. PYRENESTES*, p. 252.
- d⁴.* Bill not toothed.
- a⁵.* Tail short, the outstretched feet reaching to the end of the tail.
- a⁶.* Hind toe and claw longer than exposed portion of culmen; tail square.
- a⁷.* Bill with a deflected angle at the base of the cutting-edge of both mandibles 14. QUELEA, p. 254.
- b⁷.* Cutting-edge of mandible practically straight from the base.
- a⁸.* Bill pointed, the upper mandible about equal in depth to the lower mandible 30. CHLORURA, p. 388
- b⁸.* Bill curved and like that of a Grosbeak, and swollen near the base; the cutting-edge of the upper mandible festooned near the base and marked by an upward groove.
- a⁹.* Culmen rounded 15. SPERMESTES, p. 261.

* Here should probably be placed No. 13. *Cryptospiza*, p. 254.

- ♂. Bill pointed, but the upper mandible much deeper than the lower one 17. *ORTYOSPIZA*, p. 269.
- ♂. Hind toe and claw shorter than the culminal ridge of the bill, which is very broad. 18. *AMAURESTHES*, p. 267.
- ♂. Tail rather longer, the outstretched feet not reaching to the end of the tail.
- ♂. Tail-feathers very broad, the tail being fan-shaped.
- ♂. Upper tail-coverts moderate, falling short of the end of the tail by more than length of tarsus; distance between tips of outer and centre tail-feathers as much as hind toe and claw 18. *LAGONOSTICTA*, p. 271.
- ♂. Upper tail-coverts very long, falling short of tip of tail by no more than the length of tarsus; distance between outer and centre tail-feathers not so much as hind toe and claw 19. *STICTOSPIZA*, p. 287.
- ♂. Tail-feathers narrower.
- ♂. Wing pointed, the distance between the tips of the primaries and tips of the secondaries as much as or even more than the length of the tarsus.
- ♂. Inner secondaries elongated; bill swollen and rounded, the culmen and genys both curved, the cutting-edge of the upper mandible festooned.

- d*^o. Tail longer; the wings falling short of the end of the tail by much more than the length of the tarsus. 22. ZONÆGINTHUS, p. 293.
- f*^o. Wing more rounded; the distance between the tips of the primaries and the tips of the secondaries less than the length of the tarsus.
- e*^o. Bill very long, pointed and slender, the exposed chord of the culmen exceeding the length of the hind toe and claw.
- e*^o. Inner secondaries elongated 23. EMBLEMA, p. 295.
- f*^o. Inner secondaries about equal in length to the others 24. ZONOGASTRIS, p. 296.
- f*^o. Bill stouter, the exposed chord of the culmen not exceeding the length of the hind toe and claw.
- g*^o. Bill curved, the culmen swollen; tail graduated 25. PYTELIA, p. 300.
- h*^o. Bill curved, the culmen rather swollen and rounded; tail square.
- a*¹⁰. Wing very much rounded, the distance between the tips of the primaries and the tips of the secondaries not more than length of the hind toe without claw 26. COCCOPYGIA, p. 305.
- b*¹⁰. Wing much more pointed; the differences between the tips of the primaries and the tips of the secondaries equal to the length of the hind toe and claw 27. HYPOCHLÆRA, p. 308.
- i*^o. Bill pointed and triangular.
- c*¹⁰. Upper and under tail-coverts reaching nearly to the end of the tail 28. TÆNIOPYGIA, p. 311.

- d¹⁰. Upper and under tail-coverts falling short of the end of the tail by more than the length of the tarsus; tail decidedly graduated; inner secondaries not elongated. 29. STICTOPTERA, p. 313.
- e'. Tail rounded and graduated to such an extent that the difference between the outer and centre tail-feathers is as great as the length of the tarsus; the centre tail-feathers not produced or pointed.
- i''. Secondaries not nearly as long as the primaries; cutting-edge of upper mandible festooned 30. NIGRITA, p. 314.
- k''. Secondaries as long as the primaries; cutting-edge of upper mandible practically straight; bill very small, the exposed chord of the culmen not more than the length of the inner toe and claw [p. 319.
- f. Centre tail-feathers produced and pointed, but the tail itself wedge-shaped, not greatly graduated, so that the difference between the outer and the centre feathers is not so great as the length of tarsus. 31. SPORÆGINTHUS,
- l''. Bill swollen and rounded, the culmen strongly arched; upper and lower mandibles about equal in depth.
- e'''. Tail moderately long, not exceeding the wing by as much as the tarsus with the middle toe and claw; the claws much straightened 32. MUNIA, p. 326.
- f'''. Tail moderately long, not exceeding the wing by as much as the length of the tarsus with the middle toe and claw; the claws much

- o'. Tail not so strongly graduated, but the centre feathers produced to a thread-like point 37. POEIPHILA, p. 375.
- k'. Tail longer than wing, exceeding it by less than length of tarsus.
- p'. Inner secondaries elongated, so as to equal the primaries in length.
- h'''. Bill sharply pointed and stout, the exposed portion of the culmen more than equal to the length of the hind toe and claw 38. ERYTHRURA, p. 380.
- i'''. Bill much more curved, the exposed portion of the culmen less than the length of the hind toe and claw.
- e'. Nostrils exposed and not entirely hidden by feathers at base of forehead 40. NEOCHMIA, p. 389.
- f'. Nostrils hidden by plumelets at base of forehead 41. ESTRILDA, p. 390.
- q'. Inner secondaries not perceptibly elongated; second primary falcated. 42. GRANATINA, p. 403.

1. VIDUA *.

Vidua, Cuvier, *Leçons Anat. Comp.* i. Tabl. ii. (1800) .. Type.
No type indicated.

Range. Confined to Africa.

Key to the Species.

- a. Under surface of body white..... *principalis*, p. 203.
- b. Under surface of body blue-black like the upper surface..... *hypocherina*, p. 203.

1. *Vidua principalis*.

Long-tailed Sparrow, Edwards, *Gleanings*, ii. p. 126, pl. 270. fig. 1 (1760).

La petite Veuve, Briss. *Orn.* iii. p. 124, pl. viii. fig. 2 (1760).

La grande Veuve, Briss. *t. c.* p. 127; *Month. Hist. Nat. Ois.* iv. p. 162 (1778).

La Veuve d'Angola, Briss. *Orn.* vi. App. p. 80 (1760).

* VIDUA SUPERCILIOSA.

Fringilla superciliosa, Vieill. *N. Dict. d'Hist. Nat.* xii. p. 216 (1817); *id.* & Oud. *Gal. Ois.* i. p. 73, pl. lxi. (1825).

Vidua superciliosa, Gray in Griffith's ed. *Cuvier Règne Anim.* ii. p. 150 (1829); Gray, *Gen. B.* ii. p. 355 (1849); Bp. *Consp.* i. p. 449 (1850);

Gray, *Hand-l. B.* ii. p. 47, no. 6663 (1870); Shelley, *Ibis*, 1886, p. 341.

Videstrella superciliosa, Lafr. *Rev. et Mag. de Zool.* 1850, p. 325.

This species is unknown to me.

- Emberiza serena*, Linn. S. N. i p. 313 (1766, ex Edwards); Des Murs in Lefebvre's Voy. Abyss., p. 113 (c. 1845).
Emberiza vidua, Linn. l. c. p. 312.
Emberiza principalis, Linn. l. c. p. 313; Vieill. N. Dict. d'Hist. Nat. xii. p. 219 (1117).
 La petite Veuve, Daubent. Pl. Ent. iv. pl. 8 fig. 2.
 La Veuve dominicaine, Montb. Hist. Nat. Ois. iv. p. 100 (1778); Vieill. Ois. Chant pl. 30 (1805).
 La Veuve mouchetée, Montb. l. c. p. 105 (1778).
 Dominican Bunting, Lath. Gen. Syn. ii. pt. i. p. 180 (1783).
 Long-tailed Bunting, Lath. l. c. p. 181 (1783).
 Variegated Bunting, Lath. l. c. p. 181 (1783).
Fringilla serena, Vieill. N. Dict. d'Hist. Nat. xii. p. 219 (1817).
Vidua principalis, Cuvier, Règne Anim. i. p. 380 (1817); Gray, Gen. B. ii. p. 355 (1849); Strickl. P. Z. S. 1850, p. 218, Bp. Cons. i. p. 449 (1850); Cab. Mus. Hein. Th. i. p. 175 (1850); Hartl. Orn. W.-Afr. p. 130 (1857); Grill. Zool. Antechu. pp. 10, 23 (1859); Cass. Proc. Philad. Acad. 1859, p. 130; Hartl. J. f. O. 1861, p. 257; Brehm, Reis. Habesch, p. 90 (1863); Antin. Cat. descr. Occ. p. 69 (1864); Kirk, Ibis, 1864, p. 321; Layard, B. S. Afr. p. 180 (1867); Sperling, Ibis, 1868, p. 200; Sharpe, Ibis, 1868, p. 192; Gray, Hand-l. B. ii. p. 47, no. 6060 (1870); Heugl. Orn. N. O.-Afr. i. pt. 2, p. 385 (1870), iv. p. cxxxix (1871); Mellus, Ibis, 1870, p. 100; Finach, Trans. Z. S. vii. p. 265 (1870); Sharpe, P. Z. S. 1870, pp. 144, 149; Cab. in Von der Decken's Reis. iii. p. 31 (1869); Finach & Hartl. Voy. Ostaf. p. 428 (1870); Sharpe, Cat. Afr. B. p. 63 (1871); Gurney in Anders. B. Dam-Ld. p. 181 (1872); Buckley, Ibis, 1874, p. 381; Casser, l. c. p. 69; Ayres, l. c. p. 104; Shelley, Ibis, 1875, p. 79; Sharpe & Bouvier, Bull. Soc. Zool. France, 1876, p. 48; Reichen. J. f. O. 1875, p. 41; id. J. f. O. 1877, p. 28; Boraye, Orn. Angola, p. 345 (1877-81); Cab. J. f. O. 1878, p. 204; Nichols P. Z. S. 1878, p. 130; Fischer & Reichen. J. f. O. 1879, p. 151; Oust. N. Arch. Mus. (2) ii. Bull. p. 110 (1879); Ayres, Ibis, 1880, p. 107; Sharpe in Oates' Matabele-Land, App. B, p. 319 (1881); Hartl. Abhandl. nat. Ver. Bremen, vii. p. 102 (1881); Shelley, P. Z. S. 1881, p. 587; Pelz. Verh. z. Ges. Wien, xxx. p. 613 (1882); Gurney, Ibis, 1881, p. 128; Holub & Von Pelz. Beitr. Orn. Sudaf. p. 122 (1882); Salvin, Cat. Strickl. Coll. p. 246 (1882); Butler, Feilden, & Reid, Zool. 1882, p. 200; Shelley, Ibis, 1883, p. 553; Sharpe, Journ. Linn. Soc. xvii. p. 426 (1884); Fischer, Zeitschr. ges. Orn. i. p. 325 (1884); id. J. f. O. 1885, p. 135; Buttik Notes Leyden Mus. vii. pp. 91, 197 (1885); Shelley, P. Z. S. 1885, p. 228; Hartert, J. f. O. 1886, p. 584; Buttik Notes Leyd. Mus. viii. p. 259 (1886); Shelley, Ibis, 1886, p. 341; Reichen. J. f. O. 1887, pp. 70, 301, 305; Matschie, l. c. pp. 143, 154; Symonds, Ibis, 1887, p. 331; Shelley, Ibis, 1888, p. 302; id. P. Z. S. 1888, p. 33.
Vidua serena, Cuv. Règne Anim. i. p. 380 (1827); Reichen. Singr. p. 60, tav. xxv. fig. 213 (1861); Blanf. Geol. & Zool. Abyss. p. 408 (1870); Keulem Onze Vog. i. pl. 38 (1862).
Vidua erythrorhyncha, Swains. B. W. Afr. p. 176, pl. 12 (1837); Fraser, P. Z. S. 1843, p. 52; Rupp. Syst. Uebers. p. 77 (1845); Gordon, Contr. Orn. 1849, p. 10; Heugl. Syst. Uebers. p. 39 (1851); Gurney, Ibis, 1860, p. 212; Reichenb. Singr. p. 60, Taf. xxv. figs. 214-216 (1861); Antin. & Sulead. Viagg. Bopyr, p. 117 (1873); Sulead. Ann. Genor. (2) i. p. 181 (1864), vi. p. 285 (1888).

Videstrella serena, *Lafr. Rev. et Mag. de Zool.* 1850, p. 323.

Vidua fuliginosa, *Licht. Nomencl.* p. 49 (1854).

Vidua decora, *Hartl. Ibis*, 1862, p. 340; *Monteiro, t. c. p.* 328; *Gray, Hand-l. B.* ii. p. 47, no. 6062 (1870).

Estrela carmelita, *Hartl. Ibis*, 1868, p. 40; *Gurney, Ibis*, 1873, p. 259.

Adult male in breeding-plumage. General colour above black, with a slight greenish gloss; lower back and rump white, the feathers mesially streaked with black: lesser and median wing-coverts white, forming a large shoulder-patch; greater coverts, bastard-wing, primary-coverts, and quills black, with a few remains of white or sandy-buff margins, especially on the inner secondaries; the inner greater coverts also externally white: upper tail-coverts black with hoary grey margins: centre tail-feathers entirely black, the rest black, edged with sandy buff; the inner webs white interiorly: crown of head black, separated from the hind neck by a narrow nuchal collar of white; lores and eyelid as well as the feathers at base of the lower mandible black; ear-coverts, cheeks, sides of neck, and entire under surface of body pure white, with a large patch of greenish black at the sides of the upper breast; a small black spot on the chin; a few dusky streaks on the flanks; thighs, under tail-coverts, under wing-coverts, and axillaries white; the coverts near the edge of the wing blackish, edged with white; quills below black, white along the inner web: "bill red; feet light reddish brown; iris dark brown" (*C. J. Andersson*). Total length 10·2 inches, culmen 0·4, wing 2·85, tail 1·9, centre feathers 7·3, tarsus 0·7.

In some specimens the black spot on the chin is larger than in others, and the black patch on the sides of the upper breast forms a half-crescent on the latter. The spot on the chin varies in size, and is sometimes absent altogether; it may be that it is only assumed in the height of the breeding-season; certainly it is not peculiar to the birds of any one locality. The amount of white on the inner greater coverts and the tail-feathers also varies considerably.

Adult female. Different from the male. General colour above tawny buff, streaked everywhere with black down the centre of the feathers; the rump more uniform, but the upper tail-coverts streaked like the back, the long ones brown with sandy-buff edges and black centres; lesser and median wing-coverts black, broadly margined with sandy buff; greater coverts black, edged with tawny or sandy buff; bastard-wing and primary-coverts black; quills blackish, edged with ashy, the inner secondaries broadly margined with tawny buff; tail-feathers dusky, edged with whitish, the outer ones broadly white towards the end of the inner web; crown of head uniform tawny in the centre, with a broad lateral band of black, followed by a broad tawny eyebrow; lores and eyelid tawny buff; ear-coverts black along the upper part in the form of a broad streak, tawny buff on the lower part like the feathers below the eye and fore part of cheeks; a broad streak of black along the hinder cheeks; throat white, more or less marked with tawny buff; fore neck, chest, and upper breast uniform tawny buff, with a few distinct streaks of

black on the sides of the fore neck ; lower breast and abdomen white ; sides of body and flanks tawny buff, with some lines of black on the latter ; thighs and under tail-coverts white, slightly marked with tawny buff ; under wing-coverts and axillaries white ; quills below dusky, white along the inner edge. Total length 4·7 inches, culmen 0·4, wing 2·65, tail 1·95, tarsus 0·6.

The differences between the winter and summer plumages of the female seem to me to be infinitesimal, and to consist principally in the more tawny tinge of the plumage in the winter season.

The *adult male in winter plumage* is scarcely distinguishable from the female, but is slightly larger (wing 2·9 inches) and blacker on the wings ; the throat also is whiter.

Young. Entirely different from the adults. Uniform brown above ; wing-coverts rather more reddish brown than the back ; bastard-wing and primary-coverts uniform dusky brown ; greater coverts and quills dusky brown, edged externally with reddish brown, lighter on the primaries ; upper tail-coverts like the back ; tail-feathers dusky brown, edged with reddish brown, the outer feathers ashy whitish on their inner webs ; head like the back ; lores ashy whitish ; sides of face, ear-coverts, cheeks, and throat ashy white ; remainder of under surface isabelline, browner on the sides of the chest, sides of body, flanks, and thighs ; under tail-coverts isabelline ; under wing-coverts and axillaries white, washed with isabelline, quills ashy brown below, whitish along the inner web ; bill black.

Specimens moulting from this uniform plumage into the variegated plumage of the adults are in the collection.

Hab. From Senegambia along the whole western coast to Damara and Great Namaqua Land, and extending along the Congo to the White Nile district. Throughout North-eastern Africa as high as 17° N. lat. ; also throughout the whole of the Zanzibar and Masai countries as far inland as Lake Tanganyika, and south to Mozambique and the Zambesi ; thence south into the eastern Cape Colony as far west as the Knysna district. It probably occurs in all the intervening countries of Africa.

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| a. Var. mel. sk. | [Died in captivity.] | Sharpe Coll. |
| b. Imm. sk. | Africa. | Old Coll. |
| c. Juv. sk. | Camboro, (Gambia) (<i>A. Marche</i>). | M. A. Bouvier [P.] |
| d g. ♂ ad. ; h. ♀ ad. ; i-l Juv. sk. | Gambia. | Sharpe Coll. |
| m. Imm. sk. | Gambia (<i>Col. Strachan</i>). | Sharpe Coll. |
| n, o. Imm. sk. | Gambia (<i>L. Laglaize</i>). | Tweeddale Coll. |
| p. ♂ ad. sk. | Sierra Leone (<i>Dr. Clark</i>). | Sharpe Coll. |
| q. ♂ ad. sk. | Sierra Leone. | Tweeddale Coll. |
| r. ♂ ad. sk. | Elmina, April (<i>H. F. Blissett</i>). | Shelley Coll. |
| s, t, u. Ad. sk. | Cape Coast Castle, Feb. & March (<i>T. E. Buckley</i>) | Shelley Coll. |
| v. Ad. sk. | Cape Coast Castle, March 8 (<i>G. E. S.</i>). | Shelley Coll. |
| w, x. ♂ ad. sk. | Cape Coast Castle. | Sharpe Coll. |
| y. ♂ ad. sk. | Denkera (<i>Governor Usher</i>). | Shelley Coll. |
| z. ♂ ad. ; a'. Juv. sk. | River Volta, Aug. 1870 (<i>Governor Usher</i>). | Sharpe Coll. |
| b'. ♂ ad. sk. | River Volta (<i>Governor Usher</i>). | Shelley Coll. |

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| c'. Juv. sk. | Abeokuta. | F. Nicholson, Esq.
[P.]. |
| d'. ♂ ad. sk. | Above Aboh, R. Niger (W. A. F.) | Forbes Coll. |
| e'. ♂ ad. sk. | Angola. | Monteiro Coll. (Type of <i>V. decora</i> , Hartl.) |
| -f'. ♂ ad. sk. | Loando, Angola (J. Thompson). | Shelley Coll. |
| g'. ♂ imm. sk. | Rio Dande, Angola, July 18 (Sala). | Sharpe Coll. |
| h', i'. ♂ ad. sk. | Kattenbella, Benguela, Dec. (Sala). | Sharpe Coll. |
| k'. ♀ ad.; l'. ♂ imm. sk. | Kattenbella, Jan. (Sala). | Sharpe Coll. |
| m'. ♂ ad. sk. | Otjimbique, Damara-Land, Nov. 17 (C. J. Andersson). | Sharpe Coll. |
| n'. ♂ juv. sk. | Otjimbique, Damara-Land, July 5 (C. J. A.). | Sharpe Coll. |
| o'. Var. mel. sk. | South Africa. | Forbes Coll. |
| p'. Var. mel. st. | South Africa. | Zoological Soc. |
| q'. Ad. st. | South Africa. | Hardwicke Coll. |
| r'. Juv. sk. | South Africa. | Sir A. Smith [C.]. |
| s'. ♂ juv. sk. | Knysna, Jan. 9, 1866 (C. J. Andersson). | Sharpe Coll. |
| t'-y'. Juv. sk. | George, Knysna, June (H. Atmore). | Sharpe Coll. |
| z'. Juv. sk. | East London, May 9 (T. C. Rickard). | Sharpe Coll. |
| a''. ♂ ad. sk. | Natal, Dec. 27 (T. E. Buckley). | Shelley Coll. |
| b''. ♂ ad. sk. | Durban, Natal (T. L. Ayres). | Shelley Coll. |
| c''. ♂ ad. sk. | Drakensburg Mountains, Dec. 20 (T. E. Buckley). | Shelley Coll. |
| d'-g''. ♂ ad. et juv.; h'', i''. ♀ ad. sk. | Newcastle, Natal, June, Sept., Oct. (E. A. Butler). | Shelley Coll. |
| k'', l''. ♂ ♀ imm. sk. | Pinetown, Natal, July 19 (T. L. Ayres). | Shelley Coll. |
| m'', n''. ♂ ♀ ad.; o''. ♂ juv. sk. | Weenen, Natal, March 21 (T. Arnold). | Forbes Coll. |
| p''. ♀ ad. sk. | Transvaal (T. Ayres). | Sharpe Coll. |
| q''. ♂ ad. sk. | Transvaal (F. Oates). | W. E. & C. G. Oates, Esqrs. [P.]. |
| r''. ♂ ad. sk. | Hopefontein, Dec. (F. Oates). | W. E. & C. G. Oates, Esqrs. [P.]. |
| s''. ♂ ad. sk. | Lydenburg, E. Transvaal. | F. Barratt, Esq. [P.]. |
| t''. ♂ ad. sk. | Macamac, E. Transvaal, Dec. 27. | F. Barratt, Esq. [P.]. |
| u''. Juv. sk. | Rustenburg, Jan. 28 (W. Lucas). | Shelley Coll. |
| v''. ♂ ad. sk. | Transvaal. | A. Foresman, Esq. [P.]. |
| w''-z''. ♂ ad. sk. | Makalaka Country (Dr. Bradshaw). | Shelley Coll. |
| a-δ. Imm. sk. | Tete, Zambesi. | Sir J. Kirk [C.]. |
| e. ♂ ad.; ζ. Juv. sk. | Zambesi (Dr. Meller). | Tweeddale Coll. |
| η. ♂ ad. sk. | Kilimanjaro. | H. H. Johnston, Esq. [C.]. |
| θ. ♂ ad. sk. | Kilimanjaro (H. H. J.). | Shelley Coll. |

| | | |
|-------------------------------------|---|---------------------------|
| κ. ♂ ad.; λ. ♀ ad. sk | Mombasa. | Rev. A. F. Buxton [P.]. |
| μ-ο. ♂ ad. et juv.; π, ρ. ♀ ad. sk. | Lamu. | F. J. Jackson, Esq. [P.]. |
| σ. ♂ ad. sk. | Pangani (Sir J. Kirk). | Shelley Coll. |
| τ-φ. ♂ ♀ ad. sk. | Manda Island. | F. J. Jackson, Esq. [P.]. |
| χ. ♂ ad. sk. | Mamboio (Sir J. Kirk). | Shelley Coll. |
| ψ. ♂ ad. sk. | Sassa, Niam Niam, Sept. | F. Bohndorff [C.]. |
| ω. ♀ ad. sk. | Tingasi, Aug 14, 1883. | Emin Pasha [P.]. |
| α'. ♂ ad. sk. | Bejook, Bogos Land, July 18 (W. Jesse) | Sharpe Coll. |
| β'. ♂ ad. sk. | Bejook, Bogos Land, July 18 (W. Jesse). | Salvin-Godman Coll. |
| γ'. ♂ ad. sk. | Bejook, July 16 (W. Jesse). | Tweeddale Coll. |
| δ'. Juv. sk. | Bogos Land (Eder). | Sharpe Coll. |
| ε'. ♂ ad. sk. | Shoa, May 25 (O. Antinori) | Shelley Coll. |

2. *Vidua hypocherina*.

Vidua hypocherina, J. & E. Verr. *Rev. et Mag. de Zool.* 1856, p. 260, pl. 16; *Hartl Orn W.-Afr.* p. 136 (1856); *Gray, Hand-l. B. n.* p. 47, no. 0061 (1870); *Oustalet, N. Arch. Mus.* (2) n. *Bull.* p. 141 (1879); *Shelley, Ibis*, 1886, p. 340, 1888, p. 302, *id. P. Z. S.* 1889, p. 367.

Vidua splendens, *Reichen. Orn Centralbl.* 1879, p. 180; *id. J. f. O.* 1880, p. 475, pl. 47, fig. 1; *Fishes, P. Z. S.* 1880, p. 475, pl. 47, fig. 1; *Shelley, P. Z. S.* 1881, p. 587; *Fischer, Zeitschr. ges. Orn.* i. p. 325 (1884); *id. J. f. O.* 1885, p. 135.

Adult male. General colour above and below glossy steel-blue, a little greener on the wing coverts, which are black, edged with steel-blue; bastard-wing black; primary-coverts brown; quills black, edged with whitish, the innermost secondaries with steel-blue like the back; tail feathers black, edged with whitish along the ends of the inner webs, the long centre feathers greenish black; under surface glossy steel-blue, with a few white or greyish-white feathers on the flanks; a large white patch along the sides of the back, concealed by the wing; under wing-coverts and axillaries white; quills ashy below, white along the inner web: "upper mandible horn brown, under mandible horn; feet brown; iris brown" (*Fischer*). Total length 10·7 inches, culmen 0·25, wing 2·65, tail 1·7, long central feathers 8·5, tarsus 0·55.

The winter plumage of this species has not yet been identified. It is probably similar to the winter plumage of *V. principalis*, and has a broad white eyebrow, to judge from a specimen in the Shelley Collection, which is changing into the blue plumage of the adult.

Hab. Zanzibar district in Eastern Africa. Gaboon (doubtful), *cf.* *Oustalet, l.c.* Rochebrune gives many localities for the species in Senegambia, but no one else has observed the species there.

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|------------------------|------------------------------|-----------------------------|
| a. ♂ ad. sk. | Jipe Lake, Sept 27, 1885. | F. J. Jackson, Esq. [P.]. |
| b. ♂ ad. sk. | Plains south of Kilimanjaro. | H. C. V. Hunter, Esq. [P.]. |
| c, d. ♂ ad. et juv. sk | Ugogo (Sir J. Kirk). | Shelley Coll. |

2. TETRÆNURA.

| | | |
|---|-------|--------------------|
| Videstrela, <i>Lafr. Rev. et Mag. de Zool.</i> 1850, p. 325 | | Type.
T. regia. |
| Tetrænura, <i>Reichenb. Singv.</i> p. 61 (1861) | | T. regia. |

Range. Confined to Africa.

1. Tetrænura regia.

La Veuve de la Côte d'Afrique, *Briss. Orn.* iii. p. 129, pl. ix. fig. 1 (1760); *Daubent. Pl. Enl.* iv. pl. 8. fig. 1.

Emberiza regia, *Linn. Syst. Nat.* i. p. 313 (1766).

Veuve à quatre brins, *Montb. Hist. Nat. Ois.* iv. p. 158, pl. 5 (1778); *Vieill. Ois. Chant.* pls. 34, 35 (1805).

Shaft-tailed Bunting, *Lath. Gen. Syn.* ii. pt. i. p. 183 (1783).

Fringilla regia, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 220 (1817).

Vidua regia, *Cuv. Règne Anim.* i. p. 339 (1817); *Gray, Gen. B.* ii. p. 355 (1849); *Bp. Consp.* i. p. 449 (1850); *Hartl. Orn. West-afr.* p. 136 (1857); *Layard, B. S. Afr.* p. 188 (1867); *Gray, Hand-l. B.* ii. p. 47, no. 6059 (1870); *Sharpe, Cat. Afr. B.* p. 63 (1871); *Gurney in Anders. B. Dam.-Ld.* p. 181 (1872); *Buckley, Ibis*, 1874, p. 381; *Bocage, Orn. Angola*, p. 346 (1877-81); *Sharpe, in Oates' Matabele-Ld., App.* p. 319 (1881); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 123 (1882); *Shelley, Ibis*, 1882, p. 354; *Sharpe, ed. Layard's B. S. Afr.* pp. 453, 848 (1884); *Shelley, Ibis*, 1886, p. 342.

Videstrela regia, *Lafr. Rev. et Mag. de Zool.* 1850, p. 325.

Tetrænura regia, *Reichenb. Singv.* p. 61, Taf. xxvi. figs. 217, 218 (1861).

Vidua paradisica (nec L.), *Barratt, Ibis*, 1876, p. 207 (err.).

Adult male in breeding-plumage. General colour above black, slightly mottled on the rump with grey bases to the feathers; wing-coverts entirely black, as also the secondaries; bastard-wing, primary-coverts, and primary quills sooty brown, the latter narrowly fringed with whitish brown; upper tail-coverts and centre tail-feathers black, the remainder brown, edged with whitish brown, the outer ones having a large spot of white at the end of the inner web; crown of head black, separated from the back by a broad collar of tawny buff; throat, eyelids, and feathers at base of bill black; ear-coverts, cheeks, sides of neck, and under surface of body tawny buff, more rufous on the sides of the body, which have a large tuft of silvery white plumes; thighs tawny; sides of vent and under tail-coverts black; under wing-coverts and axillaries white, washed with buff near the edge of the wing; quills below blackish, white along the inner edge: "bill, feet, and claws coral-red; iris dark hazel" (*P. Oates*). Total length 12 inches, culmen 0.4, wing 2.9, tail 1.5, long centre feathers 2.7, tarsus 0.6.

Adult female. Similar to the female of *Steganura paradisica*, but without the tawny crown and eyebrow, lacking also the black streak above the ear-coverts. The crown is always whitish with a lateral stripe of dusky brown, the centre always more or less streaked with

dusky brown, but the most distinguishing character is the light tip to the end of the inner web of the outer tail-feathers.

Young. Nearly uniform brown, but lighter than the young of *Vidua principalis*, the eyebrow and sides of face being yellowish buff as well as the ear-coverts; the general colour below, too, is yellowish buff instead of isabelline.

Hub. Confined to South Africa. From Colesberg north through the Transvaal to the Zambesi; from Benguela to Damara-Land in the west.

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|------------------------------|--|-----------------------------------|
| a, b. ♂ ♀ ad. sk. | Interior of South Africa (<i>E. L. Layard</i>). | Sharpe Coll. |
| c. ♀ ad. sk. | Interior of South Africa. | Sir A. Smith [C.]. |
| d. ♂ ad. sk. | R. Limpopo, Nov. 15 (<i>T. E. Buckley</i>). | Shelley Coll. |
| e. ♂ ad. sk. | Near Rustenberg, E. Transvaal, Jan. 1875. | F. Barratt, Esq. [P.]. |
| f-i. ♂ ad.; k. ♀ ad. sk. | Tati, Matabele-Land, March (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.]. |
| l, m, n. ♂ imm. sk. | Damara-Land, Nov. (<i>C. J. A.</i>). | Sharpe Coll. |
| o, p. ♂ ♀ juv. sk. | Otjimbingue, Damara-Land, July 1868 (<i>C. J. A.</i>). | Sharpe Coll. |
| q, r. ♂ ♀ ad.; s. ♂ juv. sk. | Otjoro, Damara-Land, Nov. 29, 1859 (<i>C. J. A.</i>). | Sharpe Coll. |
| t. ♂ ad. sk. | Otjoro, Nov. 25, 1859 (<i>C. J. A.</i>). | Shelley Coll. |
| u. ♂ ad. sk. | Omaruru, Feb. 13 (<i>A. Erikson</i>). | Shelley Coll. |
| v. ♀ ad. sk. | Ondonga, Ovampo Land, Nov. 28, 1866 (<i>C. J. A.</i>). | Sharpe Coll. |

3. LINURA.

Linura, Reichen. Orn. Centralbl. 1882, p. 91 ^{Type.} *L. fischeri*.

Range. Eastern Africa from the Kilimanjaro district to Shoa.

tail-coverts ochreous brown, with black centres; tail-feathers black, the four long central ones straw-coloured; crown of head light sandy buff; occiput, nape, and hind neck black, like the sides of the neck; lores like the crown; feathers round eye, ear-coverts, cheeks, throat, and fore neck black; remainder of under surface of body light creamy buff, with a few narrow blackish streaks on the flanks; thighs brown; under tail-coverts creamy buff; under wing-coverts and axillaries blackish, with buff margins; quills below blackish, ashy along the inner edge. Total length 10 inches, culmen 0·4, wing 2·6, tail 1·55, long central feathers 7·8, tarsus 0·6.

Hab. Kilimanjaro District, E. Africa, to Shoa.

| | | |
|--------------|--------------|-----------------------------|
| a. ♂ ad. sk. | Kilimanjaro. | F. J. Jackson, Esq. [P.]. |
| b. ♂ ad. sk. | Kilimanjaro. | H. C. V. Hunter, Esq. [P.]. |

4. STEGANURA.

Steganura, *Reichenb. Syst. Av. Taf. lxxvi. fig. 30* (1850) . *S. paradisea*. Type.

Range. Confined to Africa.

1. *Steganura paradisea*.

Red-breasted Long-tailed Finch, *Edwards, Gleanings*, ii. p. 86, pl. 86 (1747).

La Veuve, *Briss. Orn.* iii. p. 120, pl. viii. fig. 1 (1760).

Emberiza paradisea, *Linn. Syst. Nat.* i. p. 312 (1766); *Gm. Syst. Nat.* i. p. 882 (1788).

La Grande Veuve d'Angola, *Daubent. Pl. Enl.* iv. pl. 194.

La Veuve à collier d'or, *Montb. Hist. Nat. Ois.* iv. p. 155 (1778); *Vieill. Ois. Chant.* pls. 37, 38 (1805).

La Grande Veuve, *Montb. t. c.* p. 162, pl. vi. (1778).

Whidah Bird, *Lath. Gen. Syn.* ii. pt. i. p. 178 (1783).

Fringilla paradisea, *Vieill. Dict. d'Hist. Nat.* xii. p. 213 (1817).

Vidua paradisea, *Curier, Règne Anim.* i. p. 389, note (1817); *Rüpp. Syst. Uebers.* p. 77 (1845); *Gray, Gen. B.* ii. p. 355 (1857); *Hartl. Orn. Westafr.* p. 137 (1857); *id. J. f. O.* 1861, p. 257; *Kirk, Ibis*, 1864, p. 322; *Gray, Hand-l. B.* ii. p. 48, no. 6664 (1870); *Finsch & Hartl. Vög. Ostafr.* p. 425 (1870); *Sharpe, Cat. Afr. B.* p. 63 (1871); *Gurney in Anderss. B. Dam.-Ld.* p. 181 (1872); *Barratt, Ibis*, 1876, p. 207; *Bocage, Orn. Angola*, p. 346 (1877-81); *Shelley, Ibis*, 1882, p. 354; *Böhm, J. f. O.* 1885, p. 30; *Shelley, Ibis*, 1886, p. 342, 1888, p. 302; *Büttik. Notes Leyden Mus.* x. p. 230 (1888).

Steganura paradisea, *Bp. Consp.* i. p. 449 (1850); *Cab. Mus. Hein. Th. i.* p. 176 (1850); *Reichenb. Singv.* p. 63, *Taf. xxviii. figs.* 224, 225 (1861); *Antin. Cat. descr. Ucc.* p. 69 (1864).

Steganura sphenura, *Bp. Consp.* i. p. 449 (1850); *Cab. Mus. Hein. Th. i.* p. 176 (1850); *Reichenb. Singv.* p. 63, *Taf. xxviii. nos.* 226, 227 (1861).

Videstrella paradisea, *Lafr. Rev. et Mag. de Zool.* 1850, p. 325.

Vidua verreauxi, *Cass. Proc. Philad. Acad.* 1850, p. 56; *Gray, Hand-l. B.* ii. p. 48, no. 6665 (1870); *Heugl. Orn. N.O.-Afr.* iv. p. 467 (1870); *Finsch, Trans. Z. S.* vii. p. 265 (1870); *Fischer & Reichen. J. f. O.* 1879, p. 351; *Sharpe in Oates' Matabele-Ld.*,

App. p. 318; *id. ed. Layard's B. S. Afr.* p. 452 (1884); *Ayres, Ibis*, 1885, p. 345; *Reichen. J. f. O.* 1887, p. 70.

Vidua paradisæ orientalis, *Heugl. Orn. N.O.-Afr.* i. p. 583 (1870).

Vidua sphenura, *Blanf. Geol. & Zool. Abyss.* p. 407 (1870).

Steganura verreauxi, *Antin. & Salvad. Viagg. Bogos*, p. 117 (1873);

Holub & Von Pelz. Beitr. Orn. Sudafr. p. 123 (1882); *Fischer, J. f. O.* 1885, p. 135; *Salvad. Ann. Mus. Genov.* (2), vi. p. 286 (1886).

Adult male. General colour above black, with a patch of white on the sides of the lower back, generally concealed by the wings; wing-coverts and quills black, the primaries browner, with whitish-brown edges; upper tail-coverts and tail-feathers entirely black, the two centre ones broadened towards the base, but not so much as the next two, which are exceedingly broad and have the shafts produced into a hair-like appendage; crown of head black, tawny rufous across the nape, and succeeded by a broad collar of orange-buff across the hind neck; lores, sides of face, ear-coverts, cheeks, and throat black; sides of neck orange-rufous or chestnut like the fore neck and chest and upper breast; lower breast and abdomen yellowish buff, as also the thighs; sides of vent and under tail-coverts black; under wing-coverts and axillaries tawny buff; edge of wing white, mottled with black; quills below dusky, ashy along the inner edge. Total length 11 inches, culmen 0.45, wing 3, tail 2.1, centre tail-feathers 8.4, tarsus 0.65.

Adult female. Different from the male. General colour above reddish sandy, spotted with black, with which the feathers are centred; rump more ashy; wings black, the wing-coverts and quills edged with white or sandy rufous; upper tail-coverts ashy white or isabelline with black centres; tail-feathers black, tipped with white and edged with sandy rufous, the centre ones very broadly; crown of head pale sandy buff in the centre, with a broad lateral streak of black; the crown slightly streaked with black; a broad eyebrow of isabelline white; lores and feathers round the eye white; ear-coverts pale sandy buff, with a broad black streak along the upper margin; cheeks and throat buffy white; sides of neck tawny buff streaked with black; fore neck and breast uniform tawny buff, with a few black streaks at the side of the upper breast;

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| <i>a-e.</i> ♂ ad. et imm. sk. | River Gambia. | Sharpe Coll. |
| <i>f.</i> ♂ ad. sk. | River Gambia. | Shelley Coll. |
| <i>g.</i> ♂ ad. sk. | S. Louis, Senegal (<i>L. Laglaize</i>). | Tweeddale Coll. |
| <i>h.</i> ♂ ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Museum. |
| <i>i.</i> ♂ ad. sk. | Koomaylee, Abyssinia, March. | W. T. Blanford, Esq. [C.]. |
| <i>k.</i> ♂ ad. sk. | Koomaylee, May 23 (<i>W. Jesse</i>). | Tweeddale Coll. |
| <i>l.</i> ♂ ad. sk. | N.E. Africa. | Sharpe Coll. |
| <i>m-g.</i> ♀ ad. et juv. sk. | Ailat, Bogos-Land (<i>Esler</i>). | Sharpe Coll. |
| <i>r-u.</i> ♂ ad. et juv. sk. | Ugogo, E. Africa (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>v, w.</i> ♂ ad. sk. | Dar-es-Salaam (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>x.</i> ♂ ad. sk. | Lamo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>y.</i> ♂ ad. sk. | Manda Island. | F. J. Jackson, Esq. [P.]. |
| <i>z-d'</i> ♂ ad. et juv. sk. | Tete, Zambesi (<i>Sir J. Kirk</i>). | Livingstone Expedition. |
| <i>e'.</i> ♂ ad. sk. | Tati, Matabele-Land, April 30 (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.]. |
| <i>f'.</i> ♂ ad. sk. | Omaloko, Damara-Land, Jan. 19 (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>g'.</i> ♂ ad. sk. | Loanda (<i>F. Toulson</i>). | Shelley Coll. |
| <i>h', i'.</i> Imm. sk. | Africa. | Forbes Coll. |

5. CHERA.

Chera, *Gray, Gen. B.* ii. p. 355 (1849) C. ^{Type.}procne.

Range. Confined to South Africa.

1. Chera procne.

La Veuve à ailes rouges du Cap de Bonne Espérance, *Daubent. Pl. Enl.* iv. pl. 635.

La Veuve à épauillettes, *Montb. Hist. Nat. Ois.* iv. p. 164 (1778); *Vieill. Ois. Chant.* p. 66, pls. 39, 40 (1805).

Emberiza procne, *Bodd. Tabl. Pl. Enl.* p. 39 (1783).

Loxia caffra, *Gm. Syst. Nat.* i. p. 858 (1788).

Emberiza longicauda, *Gm. Syst. Nat.* i. p. 884 (1788).

Emberiza imperialis, *Shaw in Miller's Cimel. Phys.* iii. p. 7 (1796).

Fringilla longicauda, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 218 (1817).

Vidua longicauda, *Cuvier, Règne Anim.* i. p. 388 (1817).

Fringilla caffra, *Licht. Verz. Doubl.* p. 22 (1823).

Vidua phænicopterus, *Swains. Classif. B.* ii. p. 112, fig. 161 (1837).

Chera procne, *Gray, Gen. B.* ii. p. 355 (1849); *Bp. Consp.* i. p. 448 (1850); *Gurney, Ibis*, 1861, p. 133; *Layard, B. S. Afr.* p. 190 (1867); *Gurney, Ibis*, 1868, p. 465; *Layard, Ibis*, 1869, p. 74; *Gray, Hand-l. B.* ii. p. 49, no. 6675 (1870); *Sharpe, Cat. Afr. B.* p. 63 (1871); *Buckley, Ibis*, 1874, p. 381; *Barratt, Ibis*, 1876, p. 207; *Bocage, Orn. Angola*, p. 347 (1877-81); *Ayres, Ibis*, 1878, p. 301, 1880, p. 107; *Sharpe in Oates' Matabele-Land, App.*

p. 319 (1831); *Holub & Von Pelz. Beitr. Orn. Südafr.* p. 124 (1882).

Chera caffra, *Cab. Mus. Hein.* Th. i. p. 176 (1850); *Licht. Nomencl.* p. 49 (1854); *Reichenb. Handb. Singr.* p. 63, pl. 29. figs. 230-232 (1861).

Vidua progne, *Schlegel, Dierentuin*, p. 198 (1872).

Coliuspasser procne, *Shelley, Ibis*, 1886, p. 345; *Büttik. Notes Leyd. Mus.* x. p. 240 (1888).

Adult male. Entirely black both above and below with a distinct gloss; lesser wing-coverts scarlet, forming a conspicuous patch; median coverts whitish, washed with sandy buff; greater coverts and quills black, edged with buffy white or sandy brown; the primaries black, only edged with sandy buff near the end of the outer web: "bill brownish red; feet dull red; iris brown" (*Dr. Holub*). Total length 19.5 inches, culmen 0.7, wing 5.4, tail 15, tarsus 1.05.

Adult female. General colour sandy buff, broadly streaked with black centres to the feathers, less distinct on the rump and upper tail-coverts; lesser wing-coverts dark brown, edged with orange; median and greater coverts dark brown, broadly edged with sandy buff; bastard-wing, primary-coverts, quills, and tail-feathers dark brown, edged externally with sandy buff, more broadly on the secondaries, the primaries rather conspicuously edged with pale fulvous near the end of the outer web; head like the back, but a little less distinctly streaked; a broad eyebrow of isabelline; lores and feathers round the eye whitish; ear-coverts reddish brown, streaked with black; under surface of body sandy buff, streaked with dusky brown on the lower throat, fore neck, sides of body, and flanks; the chin, breast, and abdomen uniform isabelline; under tail-coverts with blackish shaft-lines; axillaries and under wing-coverts sooty black; quills dusky below, ashy fulvous towards the base of the inner web. Total length 7 inches, culmen 0.75, wing 4.5, tail 2.9, tarsus 1.05.

The *adult male in winter plumage* does not differ in appearance from the adult female.

The *young male* also resembles the latter, but has the streaks on

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| <i>l.</i> ♂ imm. sk. | Pietermaritzburg, May (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>m.</i> ♀ ad. sk. | Pongola River, June 12 (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>n.</i> ♂ imm. sk. | Potchefstroom, Transvaal, Dec. (<i>T. Ayres</i>). | Forbes Coll. |
| <i>o, p, q.</i> ♂ ad. et imm. sk. | Transvaal, June, Dec. (<i>F. Oates</i>). | W. E. and C. G. Oates, Esqrs. [P.]. |
| <i>r, s.</i> ♂ ad. et juv. sk. | Transvaal, Dec. (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>t, u, v.</i> ♂ ad. sk. | Transvaal, Nov. to Jan. (<i>T. Ayres</i>). | Shelley Coll. |

6. PENTHETRIA.

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| | Type. |
| <i>Coliuspasser</i> *, <i>Rüpp. Neue Wirb.</i> p. 98 (1835-40) | <i>P. laticauda</i> . |
| <i>Penthetria</i> , <i>Cab. Arch. f. Naturg.</i> 1847, p. 331 | <i>P. laticauda</i> . |
| <i>Coliostruthus</i> , <i>Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.</i> 1849, p. 158 | <i>P. laticauda</i> . |
| <i>Niobe</i> , <i>Reichenb. Singv.</i> p. 61 (1861) | <i>P. ardens</i> . |

Range. Confined to Africa.

Key to the Species.

- a.* No white on primary-coverts and base of primaries.
 - a'.* No orange on wing-coverts.
 - a''.* Head black; only a scarlet collar on fore neck (sometimes absent) *ardens*, p. 215.
 - b''.* Head scarlet, as well as the collar on the fore neck *laticauda*, p. 218.
 - b'.* Least wing-coverts orange, the median series cinnamon *hartlaubi*, p. 219.
- b.* Primary-coverts and base of primaries white.
 - c'.* Lesser wing-coverts yellow *albonotata*, p. 219.
 - d'.* Lesser wing-coverts chestnut *eques*, p. 220.

1. *Penthetria ardens*.

? *La Veuve de l'isle de Panay*, *Sonn. Voy. N. Guin.* p. 117, pl. 75 (1776).

La Veuve à poitrine rouge du Cap de Bonne Espérance, *Daubent. Pl. Enl.* iv. pl. 647.

La Veuve en feu, *Montb. Hist. Nat. Ois.* iv. p. 167 (1778).

? *Emberiza signata*, *Scop. Del. Faun. et Flor. Insubr.* ii. p. 96 (1786, *ex Sonn.*)†.

Panayan Bunting, *Lath. Gen. Syn.* ii. pt. i. p. 184 (1788).

Fringilla ardens, *Bodd. Tabl. Pl. Enl.* p. 39 (1783, *ex Daud.*)

Emberiza panayensis, *Gm. Syst. Nat.* i. p. 885 (1788, *ex L.*)

* Notwithstanding the imprimatur which this name has received from Captain Shelley and Count Salvadori, I think it is so thoroughly at variance with the rules of classical nomenclature that it cannot be allowed to stand.

† Name rejected, as Sonnerat's figure is inaccurate.

- Vidua leucocinias*, *Less. Traité*, p. 437 (1831); *Gray, Gen. B.* ii. p. 355 (1849).
Vidua torquata, *Less. Compl. Buff.* viii. p. 278 (1837).
Vidua rubritorques, *Savains. B. W. Afr.* i. p. 174 (1837); *Gurney, Ibis*, 1860, p. 211.
Vidua concolor, *Cassin, Proc. Philad. Acad.* 1848, p. 66; *id. Journ. Philad. Acad.* i. p. 241, pl. 30. fig. 1 (1849); *Gray, Gen. B.* ii. p. 355 (1849); *Hartl. Orn. W.-Afr.* p. 138 (1857); *Gray, Hand-l. B.* ii. p. 48, no. 6670 (1870); *Bocage, Orn. Angola*, p. 343 (1881).
Vidua ardens, *Gray, Gen. B.* ii. p. 355 (1849); *Hartl. Orn. W.-Afr.* p. 138 (1857); *Kirk, Ibis*, 1864, p. 321; *Layard, B. S. Afr.* p. 321 (1867); *Gray, Hand-l. B.* ii. p. 48, no. 6669 (1870); *Sharpe, ed. Layard's B. S. Afr.* pp. 445, 849 (1884).
Coliostruthus concolor, *Sunder. Öfv. K. Vet.-Akad. Förh. Stockh.* 1849, p. 158.
Penthetria rubritorques, *Bp. Conspect.* i. p. 448 (1850).
Penthetria concolor, *Bp. Conspect.* i. p. 448 (1850); *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 20 (1883); *Cab. J. f. O.* 1883, p. 218.
Penthetria ardens, *Cab. Mus. Hein. Th.* i. p. 177 (1850); *Finsch & Hartl. Vög. Ostaf.* p. 423 (1870); *Sharpe, Cat. Afr. B.* p. 63 (1871); *Reichen. Mith. Afrik. Ges. Deutschl.* i. p. 6 (1874); *Bocage, Orn. Angola*, p. 559 (1881); *Sharpe, App. Oates' Matabele-Land*, p. 320 (1881); *Reichen. J. f. O.* 1887, p. 301.
Penthetria auricollis, *Licht. Nomencl. Av. Neotr.* p. 49 (1854).
Penthetria panayensis, *Licht. t. c.* p. 49 (1854).
Niobe ardens, *Reichenb. Singv.* p. 61, Taf. xxvi. figs. 219, 220 (1861); *Butler, Feilden, & Reid, Zool.* 1882, p. 298.
Penthetria hartlaubi (*nec Bocage*), *Cab. J. f. O.* 1883, p. 218.
Coliostruthus ardens, *Finsch, J. f. O.* 1885, p. 135.
Colius passer ardens, *Shelley, Ibis*, 1886, p. 346.

Adult male. Entirely black above and below, with a scarlet collar across the fore neck; the back, wings, thighs, and under tail-coverts with more or less remains of sandy-brown edges to the feathers. Total length 12 inches, culmen 0·6, wing 2·9, tail 8·4, tarsus 0·85.

A specimen from Shupanga is rather smaller than those from Natal (wing 2·7 inches). Sometimes the gorget is orange instead of scarlet, and it is probable that these paler-coloured specimens are

The change to the summer plumage seems to be effected by a change of feather as regards the body, only the quills and tail-feathers being moulted, but the first parts to get black are the upper and under tail-coverts. Some males begin to show signs of change as early as July, but it is not until November that the full black dress is assumed.

Hab. Nearly the whole of South Africa from the Eastern districts of the Cape Colony to Natal and the Eastern Transvaal to the Zambesi, and occurring also in South-western Africa and Angola. Here the form called by Cassin *Vidua concolor*, in which the scarlet neck-band is totally extinct, appears to be frequent, and a perfect gradation between the necklaced *P. ardens* and the black form is said by Dr. Cabanis to exist in Angolan specimens. The species reoccurs in Senegambia, and at Sierra Leone the totally black form has again been found; the latter has also occurred in Equatorial Africa at Wakkala (*Emin Pasha*). Shelley has examined the Angolan series at Berlin and confirms the opinion of Dr. Cabanis. Specimens with an orange instead of a scarlet necklace are not uncommon.

| | | |
|------------------------|---|--------------------|
| a. ♂ ad. st. | Africa. | Purchased. |
| b. ♂ ad. sk. | Africa. | Purchased. |
| c. ♂ ad. st. | S. Africa. | Dr. Lee P. |
| d. ♂ ad. sk. | Alice, S.E. Africa, March 15, 1870 (<i>E. L. Layard</i>). | Sharpe Coll. |
| e. ♂ ad. sk. | Eland's Post, S.E. Africa (<i>T. C. Atmore</i>). | Sharpe Coll. |
| f. ♂ ad. sk. | Eland's Post, S.E. Africa (<i>T. C. Atmore</i>). | Shelley Coll. |
| g. ♂ ad. sk. | Kingwilliamstown, British Caffria. | Capt. Trevelyan P. |
| h. ♂ imm. sk. | Natal. | Purchased. |
| i. ♂ ad. sk. | Natal. | T. Ayres C. |
| k. l. ♂ ad. sk. | Weenen, Natal, Jan., Feb. (<i>A. Arnold</i>). | Forbes Coll. |
| m. n. ♂ ad. sk. | Durban, Natal (<i>T. L. Ayres</i>). | Shelley Coll. |
| o. ♂ ad. sk. | Drakensberg Mountains, Dec. 20 (<i>T. E. Buckley</i>). | Shelley Coll. |
| p-q. ♂ ad. st. iv. sk. | Newcastle, Oct. (<i>E. A. Butler</i>). | Shelley Coll. |
| r. s. ♂ v-g. 2 ul. sk. | Pinetown, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| t. ♂ ul. r. ♂ ul. sk. | Pinetown, Oct., Nov. (<i>T. L. Ayres</i>). | Shelley Coll. |
| u. ♂ ul. sk. | Lower Tugeni River, Jan. 6 (<i>T. L. Ayres</i>). | Shelley Coll. |
| v. ♂ ul. sk. | Potomarisburg. | Shelley Coll. |
| w. ♂ ul. sk. | Panama, P. Panama. | Shelley Coll. |
| x. ♂ ul. sk. | Muram, P. Panama. | Shelley Coll. |
| y. ♂ ul. sk. | Kuamling, P. Panama, Nov. 10 (<i>T. L. Ayres</i>). | Shelley Coll. |
| z. ♂ ul. sk. | Shuyangzi, Zambesi, May 1874 (<i>J. K. K.</i>). | Shelley Coll. |

| | | |
|------------|---|---------------|
| ♂. Ad. sk. | Mamboio, E. Africa (Sir J. Shelley Coll. Kirk). | |
| ♀. Ad. sk. | Ugogo (Sir J. Kirk). | Shelley Coll. |
| ♀. Ad. sk. | Loando, Angola (T. Thompson). | Shelley Coll. |

2. *Penthetria laticauda*.

- Fringilla laticauda*, Licht. Verz. Doubl. p. 24 (1823).
Coliuspasser torquatus, Rüpp. Neue Wirb., Vög. p. 98, Taf. 36. fig. 2 (1835-40); Des Murs in Lefebvre's Voy. Abyss. p. 115 (1845); Rüpp. Syst. Uebers. p. 77 (1845); Heugl. Syst. Uebers. p. 39 (1856).
Vidua laticauda, Gray, Gen. B. ii. p. 355 (1849); Lafr. Rev. et Mag. de Zool. 1850, p. 325; Gray, Hand-l. B. ii. p. 48, no. 6672 (1870).
Penthetria laticauda, Bp. Consp. i. p. 448 (1850).
Penthetria laticauda, Cab. Mus. Hein. Th. i. p. 177 (1850); Heugl. Orn. N.O.-Afr. i. p. 580 (1870), iv. p. cxxxiii (1871); Fischer, Zeitschr. ges. Orn. i. p. 326 (1884).
Coliuspasser laticaudus, Blanf. Geol. & Zool. Abyss. p. 405 (1870); Salvad. Ann. Genov. (2) i. p. 182 (1884); Shelley, Ibis, 1886, p. 347, 1888, p. 293; Salvad. Ann. Genov. (2) vi. p. 286 (1888).

Adult male. Black, streaked with broad sandy-buff edges to the feathers, less distinct on the wing-coverts, quills, and tail-feathers, which are also black; crown and nape scarlet; hind neck velvety black; forehead, lores, feathers over the eye, ear-coverts, cheeks, and throat black, followed by a broad collar of scarlet across the fore neck; this præpectoral collar joined to the scarlet on the nape, though almost disconnected by the black of the hind neck impinging on to the throat; remainder of under surface of body velvety black, with a few remains of sandy-buff edges to the feathers of the flanks, thighs, and under tail-coverts; under wing-coverts, axillaries, and lower surface of quills black: "bill black; feet dusky rufous; iris chestnut" (Heuglin). Total length 9 inches, culmen 0.7, wing 3.25, tail 5.6, tarsus 0.85.

Hab. From Abyssinia to Shoa and south to the Kilimanjaro district.

3. *Penthetria hartlaubi*.

Penthetria hartlaubi, *Bocage, Orn. Angola*, p. 341 (1881).
Coliuspasser hartlaubi, *Shelley, Ibis*, 1886, p. 347.

Adult. Of large size, entirely silky black, the lesser wing-coverts bright orange-yellow, the median series pale fawn, the greater coverts edged with fulvous; wing-coverts partly fawn-yellow, partly black; quills and tail-feathers shining black; tail long, graduated; bill leaden, the tomia whitish; feet black; iris dusky. Total length 10·6 inches, culmen 0·7, wing 4·3, tail 7·5, tarsus 1. (*Bocage*.)

Hab. Benguela.

4. *Penthetria albonotata*.

Vidua albonotata, *Cass. Proc. Philad. Acad.* 1848, p. 65; *id. Journ. Philad. Acad.* i. p. 241, pl. 30. fig. 1 (1849); *Gray, Gen. B.* ii. p. 355 (1849); *Hartl. Orn. W.-Afr.* p. 137 (1857); *Kirk, Ibis*, 1864, p. 322; *Layard, B. S. Afr.* p. 189 (1867); *Gray, Hand-l. B.* ii. p. 48, no. 6667 (1870); *Reichen. J. f. O.* 1877, p. 28.

Urobrachya albonotata, *Bp. Consp.* i. p. 448 (1850); *Monteiro, Ibis*, 1862, p. 337.

Penthetria albonotata, *Finsch & Hartl. Vög. Ostaf.* p. 420 (1870); *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 48 (1876); *Bocage, Orn. Angola*, p. 342 (1881); *Sharpe, in Oates' Matabele-Land, App.* p. 320 (1881); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 124 (1882); *Sharpe, ed. Layard's B. S. Afr.* p. 460 (1884); *Matschie, J. f. O.* 1887, p. 154.

Coliuspasser albonotatus, *Shelley, Ibis*, 1886, p. 348; *Büttik. Notes Leyden Mus.* xi. p. 75 (1888).

Adult male in breeding-plumage. Entirely velvety black, slightly browner underneath; quills and tail black, with slight remains of whitish edgings on the secondaries; lesser wing-coverts bright yellow, forming a conspicuous shoulder-patch; bastard-wing black; median and greater coverts black, externally edged with brown, the latter series broadly tipped with white, the outer greater coverts entirely white, like the primary-coverts; all the quills excepting the innermost secondaries white at the base; under wing-coverts white, the edge of the wing yellow; axillaries yellow with white bases: "bill pale bluish violet; legs black; iris hazel" (*F. Oates*). Total length 6·3 inches, culmen 0·6, wing 2·8, tail 3·1, tarsus 0·8.

Hab. S.E. Africa from Natal to the Zambesi; West Africa from the Cunene River to Gaboon.

- | | | |
|-----------------|------------------------------|----------------------|
| a. ♂ hiem. sk. | Umbilo near Durban, Natal, | Seeböhm Coll. |
| | July (<i>T. L. Ayres</i>). | |
| b, c. ♂ ad. sk. | Weenen, Natal, Dec. 1877 | Forbes Coll. |
| | (<i>W. Arnold</i>). | |
| d, e. ♂ ad. sk. | S.E. Africa. | Sharpe Coll. |
| f. ♂ ad. sk. | Transvaal, Jan. 24, 1842 | Sharpe Coll. |
| | (<i>Wahlberg</i>). | |
| . ♂ ad. sk. | Tamaretsie River, Dec. 16, | W. E. & C. G. Oates, |
| | 1874 (<i>F. Oates</i>). | Esqrs. [P.]. |

| | | |
|-----------------------------------|--|----------------------------------|
| <i>h.</i> ♂ ad. sk. | Between the Pantamatenka River and the Zambesi, Jan. 11 (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.] |
| <i>i.</i> Imm. sk. | Makalaka Country (<i>Dr. Bradshaw</i>). | Shelley Coll. |
| <i>k.</i> ♂ ad. sk. | Shirè Valley (<i>Sir J. Kirk</i>). | Livingstone Expedition. |
| <i>l.</i> ♂ ad. sk. | Angola. | Monteiro Coll. |
| <i>m.</i> ♂ ad. sk. | Quanza River. | Shelley Coll. |
| <i>n.</i> ♂ ad. sk. | Loando, Angola (<i>T. Thompson</i>). | Shelley Coll. |
| <i>o, p, q.</i> ♂ ad. et imm. sk. | Landana, Congo, Jan. (<i>L. Petit</i>). | Shelley Coll. |
| <i>r, s.</i> Juv. sk. | Gaboon (<i>Du Chaillu</i>). | Sharpe Coll. |

5. *Penthetria eques*.

Vidua eques, *Hartl. P. Z. S.* 1863, p. 106, pl. xv.; *Scl. P. Z. S.* 1864, p. 110; *Gray, Hand-l. B.* ii. p. 48, no. 6668 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 420 (1870); *Bohm, J. f. O.* 1883, p. 169; *Schalow, l. c.* p. 363; *Shelley, P. Z. S.* 1885, p. 220.

Penthetria (Urobrachya) eques, *Fischer, Zeitschr. ges. Orn.* i. p. 326 (1884).

Penthetria eques, *Cab. J. f. O.* 1878, p. 231; *Bohm, J. f. O.* 1885, p. 42.

Urobrachya eques, *Fischer, J. f. O.* 1885, p. 135.

Coliuspasser eques, *Shelley, Ibis*, 1886, p. 348, 1888, p. 203.

Adult male. Similar to *P. albonotata*, but having the lesser wing-coverts bright rufous instead of yellow: "bill horn-blue; feet black; iris brown" (*Fischer*). Total length 6·7 inches, culmen 0·6, wing 3, tail 3·4, tarsus 0·8.

Hab. East Africa from Masai-Land to Kilimanjaro and Uniamueesi and reaching to Lake Tanganyika.

| | | |
|--------------------------------|--|--------------------------|
| <i>a, b.</i> ♂ ad. et imm. sk. | Kilimanjaro. | F. J. Jackson, Esq. [P.] |
| <i>c.</i> ♂ ad. sk. | Maurui, E. Africa, Jan. 20 (<i>Dr. Fischer</i>). | Shelley Coll. |

7. *PENTHETRIOPSIS*.

and axillaries isabelline with darker centres, the edge of the wing yellow; quills below dusky, ashy isabelline along the inner edge: "bill and legs pale fleshy, the upper mandible horny; iris brown" (*W. A. Forbes*). Total length 5 inches, culmen 0·6, wing 2·5, tail 1·8, tarsus 0·75.

The *adult male in winter plumage* resembles the adult female, but is larger and has some bright yellow on the wing-coverts. There is also a stronger tinge of yellow on the eyebrow and throat; and the chest and flanks are more distinctly streaked with dark brown. The black plumage is assumed by a direct moult.

Hab. West Africa from Senegambia to Angola and extending across to Equatorial Africa and the Lake countries.

| | | |
|--|---|------------------------|
| <i>a, b.</i> ♂ ad.; <i>c, d.</i> ♀ ad.; <i>e.</i> ♂ imm. sk. | River Gambia. | Sharpe Coll. |
| <i>f.</i> ♂ imm. sk. | River Gambia. | Governor Rendall [P.] |
| <i>g.</i> ♂ ad. sk. | River Gambia. | Forbes Coll. |
| <i>h.</i> ♂ ad. sk. | River Gambia. | Rev. D. F. Morgan [P.] |
| <i>i.</i> Ad. sk. | Sierra Leone. | Tweeddale Coll. |
| <i>k.</i> ♂ ad. sk. | Sierra Leone (<i>Dr. Clark</i>). | Sharpe Coll. |
| <i>l-n.</i> ♂ ad. sk. | Fantee. | Sharpe Coll. |
| <i>o.</i> ♂ ad. sk. | Fantee. | Salvin-Godman Coll. |
| <i>p.</i> ♂ ad. sk. | Fantee. | Forbes Coll. |
| <i>q.</i> ♂ ad. sk. | Fantee (<i>H. T. Usher</i>). | Sharpe Coll. |
| <i>r.</i> ♂ ad. sk. | Fantee (<i>H. T. Usher</i>). | Shelley Coll. |
| <i>s.</i> ♂ ad. sk. | Amamoa, Cape Coast, April 1872 (<i>H. F. Blissett</i>). | Sharpe Coll. |
| <i>t.</i> ♂ ad. sk. | Elmina (<i>Nachtglas</i>). | Salvin-Godman Coll. |
| <i>u.</i> ♂ imm. sk. | Accra (<i>Smith</i>). | Sharpe Coll. |
| <i>v, w.</i> Imm. sk. | Accra, Feb. (<i>G. E. S.</i>). | Shelley Coll. |
| <i>x, y.</i> Imm. sk. | Accra, Feb. (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>z, a'.</i> ♂; <i>b'.</i> ♀ ad. | Abutchi, R. Niger, Aug. (<i>W. A. F.</i>). | Forbes Coll. |
| <i>c', d'.</i> ♂ ♀ ad.; <i>e'.</i> ♂ juv. sk. | Lokoja, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| <i>f.</i> ♂ juv. sk. | Shonga, R. Niger, Nov. (<i>W. A. F.</i>). | Forbes Coll. |

2. *Penthetriopsis macrocerca*.

- Yellow-shouldered Oriole, *Brown, Ill. Zool.* pl. xi. p. 22 (1776).
Fringilla macrocerca, *Licht. Verz. Doubl.* p. 24 (1823).
Coliuspasser flaviscapulatus, *Rüpp. Neue Wirb., Vög.* p. 98 (1835-40).
Vidua macrocerca, *Des Murs in Lefebvre's Voy. Abyss.* p. 172 (1845);
Gray, Gen. B. ii. p. 355 (1849).
Coliuspasser macrurus (*nec Gm.*), *Rüpp. Syst. Uebers.* p. 77 (1845);
Heugl. Syst. Uebers. p. 39 (1856).
Pentheria flaviscapulatus, *Bp. Consp.* i. p. 449 (1850).
Penthetria macrocerca, *Cab. Mus. Hein.* i. p. 176 (1850); *Heugl. Orn. N.O.-Afr.* i. p. 577 (1870), iv. *App.* p. cxxxiii (1871); *Sharpe, Cat. Afr. B.* p. 63 (1871).
Penthetria flaviscapulata, *Finsch, Trans. Z. S.* vii. p. 264 (1870).
Vidua flavoscapulata, *Gray, Hand-l. B.* ii. p. 48, no. 6673 (1870).
Coliuspasser flaviscapulatus, *Blanf. Geol. & Zool. Abyss.* p. 407 (1870).
Coliuspasser macrocerus, *Shelley, Ibis*, 1886, p. 347.

Adult male. Similar to *P. macrura*, but distinguished by the absence of yellow on the mantle and scapulars, which are black, only the lesser wing-coverts being bright yellow and forming a shoulder-patch: "bill black, bluish horn-colour at the tip and along the tomia; feet rufescent; iris dusky" (*Heuglin*). Total length 8.5 inches, culmen 0.65, wing 3.5, tail 4.5, tarsus 0.95.

The coloration of the female and the changes of plumage undergone by both sexes are doubtless similar to *P. macrura*, but I have no properly marked specimens to describe.

Hab. North-eastern Africa; Abyssinia.

| | | |
|-------------------------|---------------------------------------|------------------------------|
| <i>a.</i> ♂ imm. sk. | N.E. Africa. | Purchased. |
| <i>b.</i> ♂ ad. sk. | N.E. Africa. | Sharpe Coll. |
| <i>c.</i> ♂ ad. sk. | Abyssinia (<i>Dr. Rüppell</i>). | Sharpe Coll. |
| <i>d.</i> ♂ ad. sk. | Abyssinia. | Lord Mountmorris,
[P.] |
| <i>e.</i> ♂ ad. sk. | Goon-goona. | W. T. Blanford, Esq.
[C.] |
| <i>f.</i> ♂ imm. sk. | Goon-goona, May (<i>W. Jesse</i>). | Tweeddale Coll. |
| <i>g, h.</i> ♂ imm. sk. | Facado, May 1868 (<i>W. Jesse</i>). | Sharpe Coll. |

3. *Penthetriopsis soror*.

Penthetria soror, *Reichen. J. f. O.* 1887, p. 70.

Adult. Similar to *P. macrocerca*, but differing in its considerably smaller dimensions and somewhat brighter-yellow shoulder-spot. Black, with yellow shoulders; quills and wing-coverts with small tawny-brown edges; under wing-coverts tawny brown: "upper mandible and base of lower mandible black; rest of lower mandible horny white; iris brown" (*G. A. Fischer*). Total length 7.0 inches, culmen 0.6, wing 3.2, tail 3.5, tarsus 0.9. (*Reichenow*.)

Hab. Kawanga, N.E. of the Victoria Nyanza.

Young males at first resemble the old females, but are generally rather blacker, have the lesser wing-coverts washed with yellow, and show some distinct black streaks on the sides of the breast and flanks. Some specimens in July show the scarlet wing-patch and black wings of the adult male.

Hab. S.E. Africa, from the neighbourhood of East London to Natal and Mozambique and the Zanzibar district of East Africa.

| | | |
|---|--|----------------------|
| a. ♂ ad. sk. | Natal. | Purchased. |
| b. ♂ ad. sk. | Natal. | T. Ayres, Esq. [C.]. |
| c. ♀ ad. sk. | Natal (<i>T. Ayres</i>). | Salvin-Godman Coll. |
| d, e. ♂ ad. sk. | Natal. | Forbes Coll. |
| f. ♂ ad. sk. | Bushman's Road, Natal, Feb. 2, 1840 (<i>J. Wahlberg</i>). | Sharpe Coll. |
| g. ♂ juv. sk. | Klapper's Lager, Natal, Feb. 18, 1840 (<i>J. Wahlberg</i>). | Sharpe Coll. |
| h-l. ♂ ad. et juv.;
m, n, o. ♀ ad. sk. | Pinetown, Natal, Jan., Feb., May to July, Oct., Nov. (<i>T. L. Ayres</i>). | Shelley Coll. |
| p. ♂ imm. sk. | Bothas Hill, Natal, July 16 (<i>T. L. A.</i>). | Shelley Coll. |
| q. ♂ imm. sk. | Lower Umgeni River, near Durban, July 21 (<i>T. L. A.</i>). | Shelley Coll. |
| r, s. ♂ ad. sk. | Durban (<i>T. L. Ayres</i>). | Shelley Coll. |
| t. ♂ ad. sk. | Durban, Feb. 25 (<i>G. E. S.</i>). | Shelley Coll. |
| u. ♂ ad. sk. | Newcastle, Nov. 17 (<i>A. E. Butler</i>). | Shelley Coll. |

Subsp. *a.* *Urobrachya hildebrandti*.

Penthetria axillaris, *Cab. J. f. O.* 1878, p. 264 (pt.).

Adult male. Similar to *U. axillaris*, but with a larger and deeper bill, which has a slight inclination to a swelling at the base of the culmen: "bill yellowish white; feet blackish; iris brown" (*Hildebrandt*). Total length 6 inches, culmen 0.65, wing 3.35, tail 2.5, tarsus 0.85.

Hab. Mombasa district, E. Africa.

a. ♂ ad. sk. Lake Bombo, near Mombasa, July. Dr. Hildebrandt [C.].

2. *Urobrachya phoenicea*.

Coliuspasser phoenicea, *Heugl. Syst. Ueberr.* p. 39 (1856, descr. nulla); *id. J. f. O.* 1862, p. 304 (desc. orig.), 1863, p. 167.

Urobrachya axillaris (*nec Smith*), *Reich. Singv.* p. 64, Taf. xxix. fig. 228 (1861, nec fig. 229); *Antin. Cat. descr. Ucc.* p. 68 (1864); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 102 (1881); *Pelz. Verh. z.-b. Gesellsch. Wien*, xxx. p. 151 (1881), xxxi. p. 508 (1882).

Vidua axillaris, *Heugl. J. f. O.* 1867, p. 395.

Penthetria axillaris (*nec Smith*), *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 581 (1870); *Cab. J. f. O.* 1878, p. 231; *Fischer u. Reichen. J. f. O.* 1878, p. 264, 1879, p. 351; *Hartl. Zool. Jahrb.* 1886, p. 325.

Vidua phoenicea, *Gray, Hand-l. B.* ii. p. 48, no. 6674 (1870).

Urobrachya zanzibarica, *Shelley, P. Z. S.* 1881, p. 586.

Penthetria (*Urobrachya*) *axillaris*, *Fischer, Zeitschr. ges. Orn.* i. p. 326 (1884).

Pyromelana sp., *Böhm, J. f. O.* 1885, p. 61; *Matschie, J. f. O.* 1887, p. 158.

Urobrachya phoenicea, *Cab. J. f. O.* 1882, p. 122; *Matschie, J. f. O.* 1887, pp. 158, 298.

Penthetria phoenicea, *Reichen. J. f. O.* 1887, p. 70.

Coliuspasser axillaris (*nec Smith*), *Shelley, P. Z. S.* 1888, p. 33.

Adult male. Differs from *U. axillaris* in having the greater wing-coverts chestnut-brown like the median series: "bill bluish white; feet black; iris brown" (*G. A. Fischer*). Total length 6.4 inches, culmen 0.75, wing 3.5, tail 2.45, tarsus 1.

Hab. Upper White Nile from Sobat to Lado, and south to the Zanzibar district.

| | | |
|-------------------|---|--|
| a. ♂ imm. sk. | Lado, March 31. | Emin Pasha [P.] |
| b. ♂ imm. sk. | Lado, May 15 (<i>Emin Pasha</i>). | Shelley Coll. |
| c. ♂ ad. sk. | Lake Bombo, near Mombasa,
Aug. (<i>Dr. Hildebrandt</i>). | Shelley Coll. |
| d. ♂ ad. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. (Type
of <i>U. zanzibarica</i> .) |
| e. ♂ ad. sk. | Pangani (<i>Sir J. Kirk</i>). | Shelley Coll. |
| f, g. ♂ ♀ ad.; h. | Lamu (<i>Sir J. Kirk</i>). | Shelley Coll. |
| i. Juv. sk. | | |

Subsp. a. *Urobrachya traversii*.

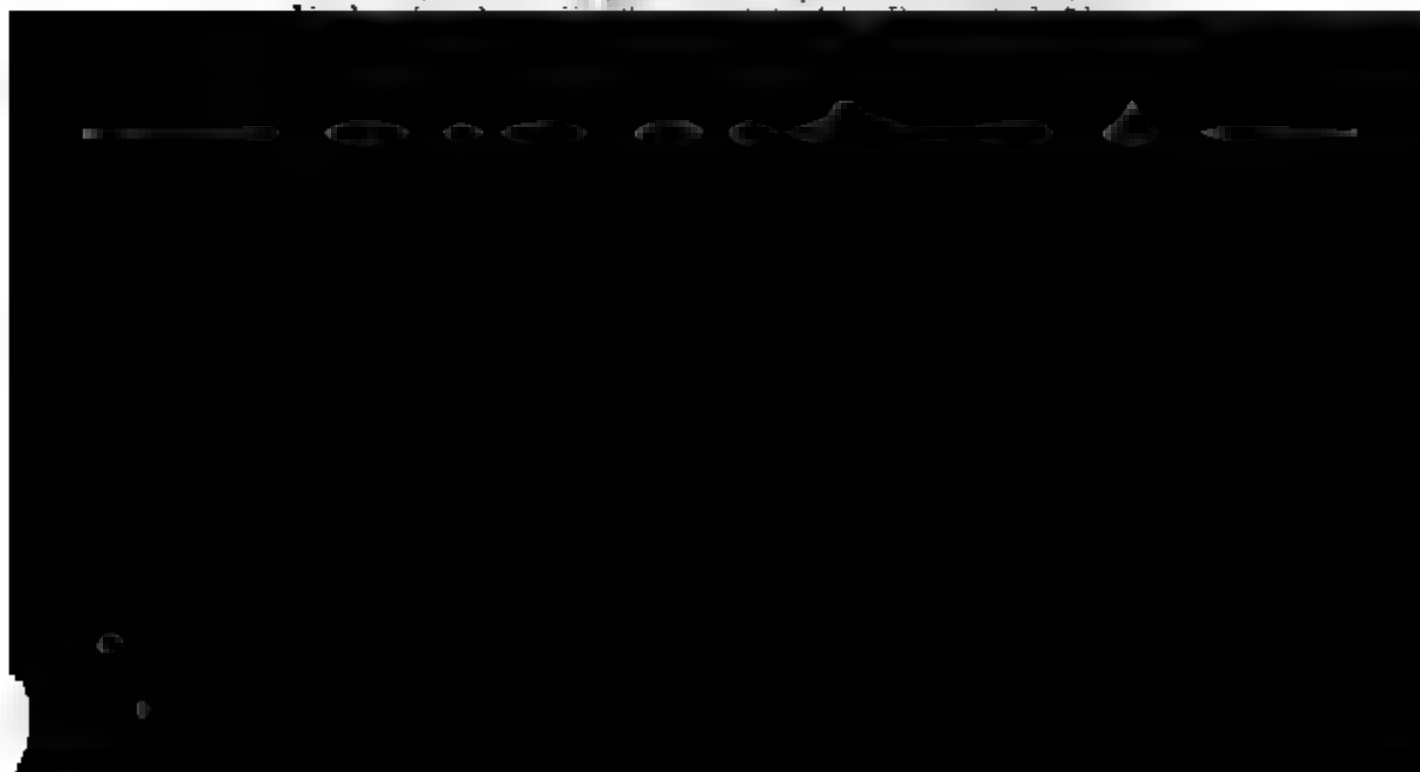
Urobrachya traversii, *Salvad. Ann. Mus. Civic. Genov.* (2), vi. p. 287 (1888).

Adult. Allied to *U. phoenicea* of Henglin, but larger and with the isabelline base of the primaries broader, forming a larger alar speculum, which is, however, nearly hidden; greater wing-coverts rufous-cinnamon, appearing broader but paler; primary-coverts cinnamon, marked with a small apical spot of black; bastard-wing cinnamon, black at the tip. (*Salvadori*.)

Hab. Shoa.

3. *Urobrachya bocagii*. (Plate IX.)

Penthetria axillaris (*nec Smith*), *Bocage, Journ. Lib.* 1867, p. 140, 1868, p. 48, 1870, p. 346. *Sharpe, P. Z. S.* 1889, p. 503.



| | | |
|--------------|---|---------------------------------|
| a. Ad. sk. | [Benguela.] | Shelley Coll. |
| b. Ad. sk. | Huilla, Benguela (<i>J. Anchieta</i>). | Sharpe Coll. (Type of species.) |
| c. Ad. sk. | Benguela. | Sharpe Coll. |
| d. ♂ ad. sk. | Caconda, Benguela (<i>J. Anchieta</i>). | Lisbon Museum. |
| e. Ad. sk. | Columbo, R. Quanza. | Monteiro Coll. |

9. PYROMELANA.

| | Type. |
|--|----------------------|
| Oryx, <i>Less.</i> (<i>nec Oken</i> , 1816), <i>Traité</i> , p. 437 (1831) | <i>P. capensis</i> . |
| Euplectes, <i>Swains.</i> (<i>nec Leach</i> , 1817), <i>B. W. Afr.</i> i. p. 186 (1837) | <i>P. capensis</i> . |
| Pyromelana, <i>Bp. Saggio Distr. Met. Anim. Vertebr.</i> p. 141 (1831) | <i>P. oryx</i> . |
| Orynx, <i>Cab. Mus. Hein.</i> Th. i. p. 176 (ex <i>Reichenb. Syst. Nat. Taf.</i> lxxvi.) | <i>P. capensis</i> . |
| Taha, <i>Reichenb. Singv.</i> p. 73 (1861) | <i>P. taha</i> . |
| Xanthomelæna, <i>Bp. Consp.</i> i. p. 447 | <i>P. capensis</i> . |

Range. Confined to Africa.

Key to the Species.

- a. Lower back and rump scarlet.
 - a'. Crown scarlet like the hind neck; no black on the crown.
 - a''. Larger: wing 2·55–2·9 inches; fore neck and chest scarlet; under tail-coverts tawny buff; under wing-coverts black. *flammiceps*, p. 228.
 - b''. Smaller: wing 2·1–2·4 inches; fore neck and chest black like the rest of the under surface; under tail-coverts scarlet; under wing-coverts tawny buff *nigriventris*, p. 230.
 - b'. Fore part of crown black.
 - c''. Under tail-coverts scarlet.
 - a'''. Upper tail-coverts not reaching beyond the tail: larger; wing 2·6–3·1 inches; throat black *oryx*, p. 230.
 - b'''. Upper tail-coverts not reaching beyond the tail; no black on the throat; black on fore part of crown not reaching beyond the forehead *nigrifrons*, p. 233.
 - c'''. Upper tail-coverts reaching beyond the tail; no black on the throat; forehead and fore part of crown black *franciscana*, p. 233.
 - d''. Under tail-coverts brown *friedrichseni*, p. 235.
- b. Lower back and rump yellow.
 - c'. With black on the crown.
 - e''. With the mantle and back yellow, contrasting with the black on the head.
 - d'''. Forehead and fore part of crown black; hinder crown like the throat and chest, orange *gierowi*, p. 235.
 - e'''. Forehead black like the rest of the crown *aurea*, p. 235.
 - f'''. Forehead orange: hind head and nape black *diademata*, p. 236.

- f'*. With the mantle black like the head;
a shoulder-patch of bright yellow on the
lesser and median coverts. [pp. 236-239.
- g''*. Thighs pale brown *capensis* and allies,
- h''*. Thighs black *xanthomelana*, p. 239.
- d'*. Crown yellow, followed by a broad band of
black across the mantle.
- g''*. With a band of yellow across the chest. *afra*, p. 241.
- h''*. With no yellow on the chest, which is
black like the rest of the under surface.
- i''*. Sides of body black.
- a'*. Larger: wing 2.75 inches; the yellow
patch on the sides of the upper
breast very small and indistinct .. *scioana*, p. 241.
- b'*. Smaller: wing 2.55 inches; the yel-
low patch on the sides of the upper
breast very distinct..... *taha*, p. 242.
- k''*. Sides of body yellow or mixed with
yellow *ladoensis*, p. 244.

1. *Pyromelana flammiceps*.

Euplectes flammiceps, *Scoates*. *B. W. Afr.* i. p. 186, pl. 13 (1837);
Rüpp. Neue Wirb., Vög. p. 101 (1835-40); *id. Syst. Uebers.* p. 76
(1845); *Gordon, Contr. Orn.* 1840, p. 9; *Bp. Consp.* i. p. 448
(1850); *Hartl. Orn. W.-Afr.* p. 127 (1857); *Monteiro, P. Z. S.*
1860, p. 111; *Hartl. J. f. O.* 1861, p. 175; *Reichenb. Singv.* p. 57,
Taf. xxiii. fig. 203 (1861); *Monteiro, Ibis*, 1862, p. 338; *Scl.*
P. Z. S. 1864, p. 109; *Heugl. J. f. O.* 1867, p. 373; *Hartl. P. Z. S.*
1867, p. 826; *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 567 (1870); *Sharpe,*
Ibis, 1869, p. 191; *id. Cat. Afr. B.* p. 62 (1871); *Shelley &*
Buckley, Ibis, 1872, p. 289; *Ussher, Ibis*, 1874, p. 69; *Sharpe*
& Bouvier, Bull. Soc. Zool. France, i. p. 47 (1876); *Bocage, Orn.*
Angola, p. 335 (1877-81); *Cab. J. f. O.* 1878, p. 231; *Fischer &*
Reichen. t. c. p. 263, 1879, p. 351; *Fischer, J. f. O.* 1880, p. 187;
Shelley, P. Z. S. 1881, p. 585; *Hartl. Abhandl. nat. Ver. Bremen*,
viii. p. 201 (1883); *Fischer, Zeitschr. ges. Orn.* i. p. 327 (1884);
id. J. f. O. 1885, p. 134; *Büttik. Notes Leyden Mus.* 1885, p. 194;
Hartert, J. f. O. 1886, p. 586.

Oryx petiti, *Des Murs in Lefebvre's Voy. Abyss.* pl. x. fig. 1 (1845-50).

Loxia (Euplectes) petiti, *Des Murs, op. cit.* p. 112 (1845).

aries; upper tail-coverts bright scarlet like the back; tail-feathers black, the centre ones edged with sandy brown; crown of head and hind neck very bright scarlet, the latter surrounded by a "wig"; a line across the base of the forehead; lores, eyelid, sides of face, ear-coverts, and fore part of cheeks black, as also the throat; hinder cheeks, sides of neck, fore neck, and chest bright scarlet; breast and abdomen glossy velvety black, as well as the sides of body and flanks; a patch of tawny buff at the sides of the upper breast; thighs, sides of vent, and under tail-coverts tawny buff, deeper near the vent, the thighs with black bases; under wing-coverts black; axillaries pale tawny buff or fulvous with black edgings; quills below black: "bill black; feet flesh-colour; iris brown" (*J. Büttikofer*). Total length 5·2 inches, culmen 0·65, wing 2·9, tail 1·65, tarsus 0·8.

The winter plumage of the male resembles the plumage of the adult female, and the scarlet dress is assumed by a direct moult. At first the mantle is distinctly browner than the lower back and rump, but it becomes gradually overshadowed with scarlet until it entirely resembles the rest of the upper surface.

Adult female. Similar to the female of *P. oryx* and tinged with yellow on the eyebrow. It has rather a more massive bill than that species, with blacker wings and tail. Total length 4·5 inches, culmen 0·6, wing 2·55, tail 1·35, tarsus 0·75.

Hab. Senegambia to the Niger on the west coast of Africa, apparently absent in the Cameroons and Gaboon, but extending from the Loango coast to the Quanza. Southern Senaar in N.E. Africa, extending as far as the Zanzibar district.

| | | |
|----------------------------------|--|------------------------------|
| a. ♀ ad. sk. | West Africa (<i>Fraser</i>). | Sharpe Coll. |
| b. Ad. sk. | [Sierra Leone.] | Tweeddale Coll. |
| c. ♂ ad. sk. | Ashantee. | Gould Coll. |
| d. ♂ ad. sk. | Enimill, Wasa, April 1872
(<i>H. F. Blissett</i>). | Sharpe Coll. |
| e. ♂ ad. sk. | Amomeah (<i>H. F. Blissett</i>). | Tweeddale Coll. |
| f, g. ♂ ad.; h. ♂
juv. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| i. ♀ ad. sk. | Fantee (<i>Sicanzy</i>). | Sharpe Coll. |
| k. ♂ ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| l, m, n. ♂ ad.; o.
♂ imm. sk. | Fantee. | Sharpe Coll. |
| p. ♂ ad. st. | Fantee. | Capt. Moloney [P.]. |
| q, r. ♀ ad. sk. | Cape Coast Castle, Feb.
(<i>G. E. S.</i>). | Shelley Coll. |
| s, t. ♂ juv. et ♀
ad. sk. | Abokobi, Feb. 26 (<i>G. E. S. &
T. E. B.</i>). | Shelley Coll. |
| u. ♂ ad. sk. | River Niger. | Mrs. Heywood [P.]. |
| v, w. ♂ ad. sk. | Abutchi, River Niger, Aug.
(<i>W. A. F.</i>). | Forbes Coll. |
| x. ♀ ad. sk. | Gaboon (<i>Du Chaillu</i>). | Tweeddale Coll. |
| y, z. ♂ ad. sk. | Landana, Congo (<i>L. Petit</i>). | Shelley Coll. |
| a'. ♂ ad. sk. | Angola (<i>Furtado d'Antas</i>). | Sharpe Coll. |
| b'. ♂ ad. sk. | Bembe, Angola (<i>J. J. Monteiro</i>). | Sharpe Coll. |
| c'. ♂ ad. sk. | Zanzibar. | F. J. Jackson, Esq.
[P.]. |

| | | |
|--|--|-------------------------|
| <i>d</i> . ♂ ad. sk. | Zanzibar. | Sir J. Kirk [C.]. |
| <i>e</i> , <i>f</i> , <i>g</i> . ♂ ad. et juv. sk. | Pangani (Sir J. Kirk). | Shelley Coll. |
| <i>h</i> , <i>i</i> . ♂ ♀ ad. sk. | Melinda (Sir J. Kirk). | Shelley Coll. |
| <i>k</i> , <i>l</i> . ♂ ad. sk. | Mombasa (Hanson). | Rev. A. F. Buxton [P.]. |
| <i>m</i> , <i>n</i> , <i>o</i> . ♂ ad.; <i>p</i> . ♀ ad. sk. | Tingasi, Equatorial Africa, July, Aug. | Emin Pasha [P.]. |
| <i>q</i> . ♂ ad. sk. | Kubbi, July 1881. | Emin Pasha [P.]. |
| <i>r</i> . ♂ ad. sk. | Abyssinia. | Dr. Rüppell [C.]. |
| <i>s</i> . ♂ ad. sk. | Abyssinia. | Sharpe Coll. |

2. *Pyromelana nigriventris*.

Euplectes nigriventris, Cass. Proc. Philad. Acad. 1848, p. 66; *id.* Journ. Philad. Acad. i. p. 242, pl. 31. fig. 1 (1849); *Bp. Conspect.* i. p. 447 (1850); *Cab. in von der Decken's Reis.* iii. p. 31 (1860); *Sharpe, P. Z. S.* 1873, p. 715; *Nichols, P. Z. S.* 1878, p. 558; *Cab. J. f. O.* 1878, p. 231; *Fischer & Reichen, J. f. O.* 1879, pp. 286, 303; *Fischer, J. f. O.* 1880, p. 187; *Shelley, P. Z. S.* 1881, p. 586; *Fischer, J. f. O.* 1885, p. 134.

Ploceus nigriventris, Gray, Gen. B. ii. p. 353 (1849); *id. Hand-l. B.* ii. p. 46, no. 6643 (1870).

Euplectes sp., Licht. Nomencl. Av. p. 49 (1854).

Pyromelana nigriventris, Finsch & Hartl. Vög. Ostaf. p. 415 (1870); *Gurney, Ibis*, 1881, p. 128; *Shelley, Ibis*, 1886, p. 353, 1888, p. 302.

Adult male. Similar to *P. flammiceps*, of which it is a diminutive form, much smaller than that species, and differing in its scarlet under tail-coverts and tawny buff thighs and under wing-coverts, as well as by the absence of the scarlet band across the fore neck, the whole of the under surface of the body being velvety black. Total length 3.75 inches, culmen 0.5, wing 2.4, tail 1.25, tarsus 0.7.

Adult female. Scarcely to be distinguished from the female of *P. franciscana*. Total length 4.4 inches, culmen 0.5, wing 2.1, tail 1.1, tarsus 0.6.

Hab. East Africa, throughout the Zanzibar district, from Mombasa south to Mozambique.

a, b ♂ ♀ ad. sk. Mombasa (Hanson).

Rev. A. F. Buxton

- Emberiza orix*, *Linn. Syst. Nat.* i. p. 309 (1766).
Grosbec de Cayenne, *Daubent. Pl. Enl.* iv. pl. 309. fig. 2.
Grenadier Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 120 (1783).
Loxia orix, *Gm. Syst. Nat.* i. p. 863 (1788); *Daud. Traité*, ii. p. 377 (1800).
Le Loxie orix, *Vieill. Ois. Chant.* p. 100, pl. lxvi. (1805).
Coccothraustes orix, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 536 (1817).
Oryx oryx, *Less. Traité*, p. 438 (1831).
Euplectes oryx, *Suicains. B. W. Afr.* i. p. 187 (1837); *Bp. Consp.* i. p. 446 (1850); *Cab. Mus. Hein. Th.* i. p. 177 (1850); *Hartl. Orn. W.-Afr.* p. 128 (1857); *Reichenb. Singv.* p. 57 (1861); *Heugl, Orn. N.O.-Afr.* i. p. 569 (1870); *Sharpe, Cat. Afr. B.* p. 62; *Gurney, Ibis*, 1871, p. 255; *Buckley, Ibis*, 1874, p. 381; *Bocage, Orn. Angola*, p. 335 (1877-81); *Ayres, Ibis*, 1878, p. 296; *Sharpe, in Oates' Matabele-Land, App.* p. 320 (1881); *Büttler, Feilden, & Reid, Zool.* 1882, p. 297.
Ploceus oryx, *Gray, Gen. B.* ii. p. 352 (1849); *Layard, B. S. Afr.* p. 185 (1867); *Gray, Hand-l. B.* ii. p. 46, no. 6637 (1870).
Euplectes sundevalli, *Bp. Consp.* i. p. 446 (1850); *Reichenb. Singv.* p. 56 (1861); *Kirk, Ibis*, 1864, p. 322; *Gurney, Ibis*, 1865, p. 269, 1868, p. 465.
Euplectes pseudorvx, *Reichenb. Singv.* p. 56 (1861).
Euplectes edwardsi, *Reichenb. t. c.* p. 57 (1861).
Euplectes petiti (nec Des Murs), *Kirk, Ibis*, 1864, p. 322.
Ploceus sundevalli, *Gray, Hand-l. B.* ii. p. 46, no. 6638 (1870).
Pyromelana oryx, *Finsch & Hartl. Vög. Ostaf.* p. 410 (1870); *Gurney in Anderss. B. Dam.-Ld.* p. 172 (1872); *Sharpe, ed. Layard's B. S. Afr.* pp. 462, 849 (1884); *Shelley, Ibis*, 1886, p. 382; *Büttik. Notes Leyden Mus.* x. p. 240 (1888), xi. p. 74 (1889).
Pyromelana sundevalli, *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 117 (1882).

Adult male. General colour above brilliant scarlet, the feathers of the mantle slightly duller and more orange; round the neck a scarlet "wig;" the forehead and sinciput, lores, eyebrow, ear-coverts, fore part of cheeks, and upper throat black; hinder cheeks, side of neck, lower throat, and fore neck scarlet; remainder of under surface of body from the chest downwards velvety black; lower flanks and under tail-coverts scarlet; thighs isabelline brown; axillaries and under wing-coverts isabelline brown; quills light brown below, ashy isabelline along the inner web: "bill dark brown; feet brownish; iris dark brown" (*C. J. Andersson*). Total length 4·8 inches, culmen 0·55, wing 3·1, tail 1·4, tarsus 0·8.

Adult female. Different from the male. Dull tawny brown, streaked with black centres to the feathers, narrower on the head; wing-coverts, quills, and tail-feathers brown, edged with tawny or isabelline brown; a narrow but distinct eyebrow of yellowish buff; ear-coverts and cheeks light brown streaked with blackish; under surface light tawny brown, narrowly streaked with black, more broadly on the sides of the body and flanks; throat, breast, and abdomen uniform isabelline; thighs, under wing-coverts, and axillaries tawny buff, the latter with a yellow tinge; quills dusky brown below, isabelline along the inner web: "bill pale brown, the upper mandible darker; tarsi and feet pale; iris ashy brown"

(*T. Ayres, MSS.*). Total length 4·7 inches, culmen 0·55, wing 2·6, tail 1·3, tarsus 0·75.

Adult male in winter plumage. Similar to the summer dress of the adult female, but distinguished by its larger size: "bill light brown, the under mandible paler; tarsi and feet light brown; iris dusky hazel" (*T. Ayres, MSS.*). Total length 5 inches, culmen 0·6, wing 2·9, tail 1·55, tarsus 0·8.

Adult female in winter plumage. Similar to the summer plumage, but with broader pale edges to the feathers and much more distinctly streaked below; wing 2·7.

Sir J. Kirk enumerates the present species and *E. petiti* from the Zambesi; but only *E. oryx* is represented in his collections. The Zambesi specimens are decidedly smaller than those from the Cape Colony and Natal, and have the black on the face and throat a little more restricted; but the diminution in size of these more northern specimens is so gradual that it is difficult to say where the large form (*E. oryx*) ends and the small form (*E. sundevalli*) begins.

Hab. Confined to South Africa, from the Cape Colony to Natal and the Transvaal and thence to the Zambesi. Great Namaqualand to Damara-Land and the Lake Regions, to Benguela.

| | | |
|------------------------------|---|-----------------|
| a, b. ♂; c. ♀
ad. sk. | Kuils River, Cape Colony,
Oct. 30 (<i>J. Butler</i>). | Shelley Coll. |
| d. ♂ hiem. sk. | New Barmen, Aug. 13, 1864
(<i>C. J. Andersson</i>). | Sharpe Coll. |
| e. ♂ ad. sk. | Eland's Post (<i>T. C. Atmore</i>). | Sharpe Coll. |
| f. ♂ ad. sk. | Bloemfontein. | Tweeddale Coll. |
| g. ♂ imm. sk. | Ungeni River, near Durban,
July 21 (<i>T. L. Ayres</i>). | Shelley Coll. |
| h. ♂ ad. sk. | Pietermaritzburg, Oct. 20
(<i>E. A. Butler</i>). | Shelley Coll. |
| i. ♀ ad. sk. | Newcastle, June 18 (<i>E. A. Butler</i>). | Shelley Coll. |
| k. ♂ ad.; l, m.
♀ ad. sk. | Natal. | Sharpe Coll. |
| n, o. [♀] ad.
sk. | Weenen, Natal, Dec. (<i>T. Arnold</i>). | Forbes Coll. |
| p, q. ♂ ad. sk. | Transvaal, Dec. 16 (<i>T. E. ...</i>) | Shelley Coll. |

- m, n. ♂ ad sk. Zambezi (Dr. Meller). Tweeddale Coll.
 o. ♀ ad sk. Otjomboque, Damara-Land, Sharpe Coll.
 Feb. 16, 1855 (C. J. Anderson).
 p. ♀ ad sk. Ondonga, Ovampoland, Nov. 6, Sharpe Coll.
 1856 (C. J. Anderson).

4. *Pyromelana nigrifrons*.

Pyromelana nigrifrons, Böhm, J. f. O. 1854, p. 177; Shelley, *Ibis*, 1855, p. 353; Reichen, J. f. O. 1857, p. 70; Matschie, J. f. O. 1887, p. 68.

Pyromelana flammeiceps (nec Sw.), Böhm, J. f. O. 1855, p. 67; Matschie, J. f. O. 1887, p. 156.

Adult male. Like *P. franciscana*, but with only the forehead and not the upper part of the head black, and the tail-coverts not elongated: bill black; feet clear brownish flesh-colour; iris brown. Total length 4.5 inches, wing 2.5. (Böhm.)

Hab. Lake Tanganyika to the Victoria Nyanza.

5. *Pyromelana franciscana*.

Moineau du Cap de Bonne Espérance, Daubent. Pl. Enl. iv. pl. 134. fig. 1.

Loxia franciscana, Lvert, Schrift. Gesellsch. nat. Freunde Berlin, ix. p. 332, pl. ix. (1769).

Loxia ignicolor, Vieill. Orn. Chand. p. 92, pl. 59 (1805).

Fringilla ignicolor, Vieill. N. Hist. d'Hist. Nat. xii. p. 193 (1817); Hempr. & Ehr. Synb. Phys. fol. W. pl. ii (1828).

Euplectes ignicolor, Swainson, B. W. Afr. i. p. 154 (1837); Gordon, Contr. Orn. 1849, p. 9; Bp. Omop. i. p. 446 (1850); Sch. Contr. Orn. 1852, p. 125; Böhm, J. f. O. 1853, pp. 466, 476, 486; Antin. Cat. deserr. Loc. p. 67 (1854); Sclater, P. Z. S. 1854, p. 169.

Fringilla oryx (nec L.), Dubois, Orn. Gal. p. 44, pl. 29 (1829).

Placus franciscanus, Gray, Gen. B. ii. p. 352 (1849); id. Hand-l. B. ii. p. 46, no. 6349 (1870).

Euplectes franciscanus, Heugl. Syst. Ueberr. p. 35 (1856); Hartl. Orn. W.-Afr. p. 125 (1857); id. J. f. O. 1861, p. 175; Reichenb. Singr. p. 55, Taf. xxiii. fig. 193 199 (1861); Heugl. Orn. N.O.-Afr. i. pt. 2, p. 571 (1870), iv. App. p. cxxii (1871); Sharpe, *Ibis*, 1870, p. 191; id. Cat. Afr. B. p. 62 (1871); Shelley & Buckley, *Ibis*, 1872, p. 259; Antin. & Salvad. Viagg. Boyer, p. 115 (1873); Usher, *Ibis*, 1874, p. 69; Hartl. Abhandl. nat. Ver. Bremen, vii. p. 103 (1861), viii. p. 201 (1863); Salvad. Ann. Mus. Civic. Genov. (2) i. p. 154 (1864); Hartert, J. f. O. 1883, p. 58; Salvad. Ann. Mus. Civic. Genov. (2) vi. p. 255 (1888).

Pyromelana oryx (nec L.), Horaf. & Moore, Cat. B. Mus. E.I. Co. ii. p. 519 (1871).

Pyromelana franciscana, Finckh, J. f. O. 1860, p. 333; Finckh & Hartl. Vog. Ostaf. p. 412 (1870); Reichen. J. f. O. 1875, p. 40; Shelley, *Ibis*, 1885, p. 402; id. *Ibis*, 1886, p. 353; Büttik. Notes Leyden Mus. x. p. 86 (1892).

Adult male. Above scarlet: crown as far as the nape black, continued in a line down the ear-coverts, sides of face, and lores: cheeks,

throat, and breast bright scarlet, as also the sides of the neck; remainder of under surface of body velvety black, except the lower flanks, vent, and under tail-coverts, which are bright scarlet; thighs isabelline buff washed with red; scapulars rather duller than the back, with black centres; lesser wing-coverts brown; median and greater coverts blackish brown, edged with whity brown; bastard-wing, primary-coverts, quills, and tail-feathers dusky brown, edged with whity brown, the primaries with olive-yellow; under wing-coverts and axillaries isabelline-buff, the latter tinged with yellow; quills dusky brown below, isabelline along the inner web: "bill black; feet reddish; iris dusky" (*Heuglin*). Total length 4.5 inches, culmen 0.5, wing 2.4, tail 1.15, tarsus 0.7.

Adult female. Similar to the female of *P. oryx*, and having a yellowish eyebrow and a yellow tinge on the cheeks, but much smaller in size, and rather whiter on the abdomen. Total length 4 inches, culmen 0.5, wing 2.25, tail 1.15, tarsus 0.65.

Hab. West Africa, from Senegambia to the Gold Coast and the Niger. In N.E. Africa from Southern Nubia to Shoa, Somali-Land, and Unyoro.

| | | |
|----------------------------------|---|-----------------------|
| a. ♂ imm. sk. | West Africa. | Sharpe Coll. |
| b. ♂ ad. sk. | Senegambia (<i>L. Laglaize</i>). | Tweeddale Coll. |
| c. ♂ ad.; d, e, f.
♀ ad. sk. | River Gambia. | Sharpe Coll. |
| g. ♀ ad. sk. | River Gambia. | Purchased. |
| h. ♂ ad. sk. | River Gambia (<i>Capt. Moloney</i>). | Shelley Coll. |
| i. ♂ ad. sk. | Ashantee. | Gould Coll. |
| k. ♂ ad. sk. | Elmina, May 1872 (<i>H. F. Blissett</i>). | Sharpe Coll. |
| l. ♂ ad. sk. | Denkera (<i>H. T. Usher</i>). | Shelley Coll. |
| m. ♂ imm. sk. | Fantee. | A. Swanzy, Esq. [P.]. |
| n. ♂ ad. sk. | Fantee. | Sharpe Coll. |
| o. ♂ imm. sk. | Fantee (<i>H. T. Usher</i>). | Sharpe Coll. |
| p, q. ♀ ad. sk. | Cape Coast Castle, Jan., March
(<i>G. E. S.</i>). | Shelley Coll. |
| r. ♂ juv.; s, t, u.
♀ ad. sk. | Cape Coast Castle, Feb., March
(<i>T. E. Buckley</i>). | Shelley Coll. |
| v. ♂ ad. sk. | Accra (<i>J. Smith</i>). | Shelley Coll. |
| w. ♂ ad.; x, y. | River Volta (<i>H. T. Usher</i>). | Sharpe Coll. |

L. *Prothomium friedrichsoni*

Empidonax friedrichsoni. *Fischer & Reichen*. J. f. U. 1883. p. 48.
Fischer. Zetter per *Ort*. 1. 1887. vol. xii. pp. 2. 1884. 2.
 J. f. U. 1885. 1. 1885.

Prothomium friedrichsoni. *Harter*. *Ann.* 1884. 1. 1884.

Adult male. Upper part of the head, throat, breast, belly, wings, and tail dark; under part of the head, neck, back, and sides chestnut; under tail-coverts dark. With many brown markings on the throat, breast, and tail-feathers and with dusky markings on the wings. Under tail-coverts and all clear brown: "all dark": the under-wings are brown. *F. & R.* *Fischer*. *Ann.* 1884. 1. 1884. 2. 1884. 1. 1884. 1. 1884. *Fischer and Reichen*.

Imm. Young. *Ann.* 1. 1884.

L. *Prothomium prothom*

Empidonax prothom. *Ort*. 1. 1884. 1. 1884. vol. ii. pp. 1. *Fischer*.
Ann. 1884. 1. 1884.

Prothomium prothom. *Harter*. *Ann.* 1884. 1. 1884.

Adult male. Breast yellow above, inclining to orange or red on the under side and more intensely orange beneath throat. The sides of the head and the throat and the breast orange or red. Under breast and under throat dark. Wings and under tail-coverts brown. Wings and all dark. *F. & R.* *Fischer*. *Ann.* 1884. 1. 1884.

Imm. Young. *Ann.* 1. 1884.

L. *Prothomium prothom*

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884. vol. ii. pp. 1. *Fischer*.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Empidonax prothom. *Ort*. *Ann.* 1884. 1. 1884.

Adult male. General color above yellow, inclining to orange or red on the under side and more intensely orange beneath throat. The sides of the head and the throat and the breast orange or red. Under breast and under throat dark. Wings and under tail-coverts brown. Wings and all dark. *F. & R.* *Fischer*. *Ann.* 1884. 1. 1884.

lower eyelid white; sides of face, ear-coverts, cheeks, sides of neck, and under surface of body velvety black; lower flanks, thighs, and under tail-coverts white; under wing-coverts and axillaries pale sandy buff; quills below dusky brown, whitish along the inner web. Total length 5·3 inches, culmen 0·6, wing 2·7, tail 1·5, tarsus 0·8.

Hab. Benguela northwards to Gaboon.

| | | |
|--------------|------------------------------------|---------------|
| a. ♂ ad. sk. | West Africa (<i>Mus. Lisb.</i>). | Sharpe Coll. |
| b. ♂ ad. sk. | West Africa. | Purchased. |
| c. ♂ ad. sk. | R. Quanza. | Shelley Coll. |

9. *Pyromelana diademata*.

Euplectes diadematus, *Fischer & Reichen. J. f. O.* 1878, pp. 264, 354, pl. 2. fig. 4; *Fischer, Zeitschr. ges. Orn.* i. p. 327 (1884); *id. J. f. O.* 1885, p. 134.

Pyromelana diademata, *Shelley, Ibis*, 1886, p. 354; *id. Ibis*, 1888, p. 302.

Adult male. General colour above golden yellow, brighter on the lower back, rump, and upper tail-coverts; the mantle and upper back yellow, with dusky blackish centres to the feathers; wing-coverts dusky brown, with yellow edges to the lesser series; median and greater coverts brown, edged with whitish brown; bastard-wing, primary-coverts, and quills brown, narrowly edged with yellow, the secondaries broadly margined with white or tinged with yellow; tail-feathers brown; forehead bright orange; hinder crown and nape black, as also the sides of the neck; sides of face and ear-coverts black, mixed with yellow; throat yellow, spotted with black at the ends of the feathers; fore neck, breast, and abdomen black, some of the flank-feathers edged with yellow; lower flanks, sides of vent, and under tail-coverts bright yellow; thighs and under wing-coverts and axillaries sandy buff, the latter washed with bright yellow; quills light brown, edged with isabelline along the inner edge. Total length 3·9 inches, culmen 0·45, wing 2·2, tail 1·3, tarsus 0·65.

Hab. East Africa, from Lamu to Pangani.

Coccothraustes capensis, Vieill. *N. Dict. d'Hist. Nat.* xiii. p. 527 (1817).

Fringilla phalerata, Licht. *Verz. Doubl.* p. 22 (1823).

Oryx capensis, Less. *Traité*, p. 438 (1831).

Corythus capensis, Hahn & Küster, *Vög. Lief.* x. Taf. 4 (1834).

Euplectes capensis, Swains. *B. W. Afr.* i. p. 180 (1837); *Ip. Comap.* i. p. 447 (1850); Grill, *Zool. Anteckn.* pp. 10, 22 (1858); Selater, *P. Z. S.* 1866, p. 23; Sharpe, *Cat. Afr. B.* p. 62 (1871, pt.).

Ploceus capensis, Gray, *Gen. B.* i. p. 352 (1854); Pelz. *Iris. Novara, Vög.* p. 90 (1865); Layard, *B. S. Afr.* p. 184 (1867); Gray, *Hand-l. B.* ii. p. 45, no. 6333 (1869).

Orynx capensis, Cab. *Mus. Hein.* Th. i. p. 177 (1850).

Pyromelana capensis, Sharpe, ed. Layard's *B. S. Afr.* pp. 403, 840 (1884, pt.).

Coliuspasser capensis, Shelley, *Ibis*, 1886, p. 349.

Adult male. Velvety black, with a slight gloss as far as the middle of the back; the lower back and rump bright golden yellow; scapulars brown, with longitudinal blackish centres and washed with bright yellow; lesser and median wing-coverts golden yellow; greater coverts, bastard-wing, primary-coverts, and quills blackish, edged with lighter brown, washed with yellow on the outer margins; upper tail-coverts and tail black; entire head and neck and under surface glossy velvety black; thighs brown; under wing-coverts pale isabelline buff, edged with yellow; edge of wing bright yellow; quills dusky below, isabelline along the inner webs. Total length 6·7 inches, culmen 0·7, wing 3·4, tail 2·4, tarsus 0·95.

Adult female. Different from the male. General colour above brown, very broadly streaked with blackish centres to the feathers, those of the upper back with whitish-brown edges; lower back and rump dull olive-yellow, streaked with dusky brown; scapulars like the back; upper tail-coverts light brown, darker in the centre; lesser and median wing-coverts dark brown, edged with olive-yellow; greater coverts, bastard-wing, primary-coverts, quills, and tail-feathers dark brown, edged with whitish brown, washed with olive-yellow; crown of head like the back, but with a slight wash of yellow; lores and an ill-defined eyebrow olive-yellow; feathers round eye whitish; sides of face and ear-coverts dark brown; cheeks and under surface of body whitish brown; the cheeks, throat, sides of neck, and fore neck narrowly streaked with dark brown, with a tinge of yellow on the fore part of the cheeks; abdomen uniform whitish; the sides of the body and flanks broadly and distinctly streaked with blackish brown; thighs and under tail-coverts uniform isabelline; under wing-coverts and axillaries isabelline buff washed with golden yellow; quills below dusky, isabelline along the inner edge. Total length 6 inches, culmen 0·65, wing 3·3, tail 2·2, tarsus 0·95.

Hab. South Africa, confined to the western districts of the Cape Colony.

a, b, c. ♀ ad. sk.

South Africa (*E. L. Layard*).

Sharpe Coll.

d. ♂ ad. sk.

South Africa.

Forbes Coll.

e, f. ♂ ad. sk.

South Africa.

Sharpe Coll.

| | | |
|----------------------------------|--|---------------|
| <i>g.</i> ♀ juv. sk. | South Africa, Sept. 1841. | Sharpe Coll. |
| <i>h.</i> ♂; <i>k.</i> ♀ ad. sk. | Cape Town (<i>Butler</i>). | Shelley Coll. |
| <i>l.</i> m. ♂ ad. sk. | Cape Town, Nov. 1865 (<i>C. J. Andersson</i>). | Sharpe Coll. |

Subsp. *a.* *Pyromelana minor*.

- Oryx minor*, *Reichenb. Singv.* p. 59, pl. 24. figs. 210, 211 (1861).
Euplectes capensis (*nec L.*), *Gurney, Ibis*, 1865, p. 209; *id.* in *Anderss. B. Dam.-Ld.* p. 170 (1872); *Buckley, Ibis*, 1874, p. 381; *Barratt, Ibis*, 1876, p. 208; *Sharpe, in Oates' Matabele-Land, App. Birds*, p. 320 (1881).
Euplectes xanthomelas (*nec Rüpp.*), *Gurney, Ibis*, 1868, p. 51.
Pyromelana capensis (*nec L.*), *Sharpe, ed. Layard's B. S. Afr.* pp. 463, 849 (1884, pt.).
Euplectes capensis, var. *minor*, *Grill, Zool. Anteckn.* pp. 10, 22 (1858); *Sharpe, Cat. Afr. B.* p. 62 (1871).
Orynx capensis (*nec L.*), *Fischer, Zeitschr. ges. Orn.* i. p. 326 (1884); *id. J. f. O.* 1885, p. 134.

Adult male. Similar to *P. capensis*, and having the same brown thighs, but very much smaller: "bill pale dusky; tarsi and feet light brown; iris dusky" (*T. Ayres*). Total length 5 inches, culmen 0.6, wing 3, tail 2, tarsus 0.85.

Adult female. Similar to the female of *P. capensis*, but smaller.

Hab. From the Knysna district in the Cape Colony through Natal and the Transvaal to the Matabele country.

| | | |
|-------------------------|--|---------------|
| <i>a.</i> ♂. Imm. sk. | Knysna, Dec., Jan. (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>b.</i> ♂ ad. sk. | Port Elizabeth. | Sharpe Coll. |
| <i>c.</i> ♂ ad. sk. | Eland's Post (<i>T. C. Atmore</i>). | Sharpe Coll. |
| <i>d.</i> ♂ ad. sk. | Kingwilliamstown (<i>H. Trevelyan</i>). | Shelley Coll. |
| <i>e.</i> ♂ ad. sk. | Natal. | Sharpe Coll. |
| <i>f.</i> ♂ ad. sk. | Burg Mount, Natal, June (<i>Gordge</i>). | Shelley Coll. |
| <i>g.</i> ♀ ad. sk. | Bothas Hill, July 16 (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>h.</i> ♂ ♀ hiem. sk. | Pinetown, May 14 (<i>T. L. Ayres</i>). | Shelley Coll. |

| | | |
|----------------|---|--------------------------------------|
| y. ♂ hiem. sk. | Inyati, Sept. 29 (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.]. |
| z. ♂ ad. sk. | Hope Fontein, near Gubuleweyo, Matabele-Land, Dec. (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |

Subsp. ♂. *Pyromelana phœnicomera* *.

Euplectes phœnicomerus, *Gray, Ann. & Mag. Nat. Hist.* (3) x. p. 444 (1862); *Sharpe, P. Z. S.* 1871, p. 615; *Reichen. J. f. O.* 1875, p. 50.

Coliuspasser capensis, *Shelley, P. Z. S.* 1887, p. 126.

Adult male. Similar to *P. capensis*, but very much smaller, and the yellow paler and more of a bright lemon-yellow than golden in intensity. Total length 5 inches, culmen 0·6, wing 2·85, tail 1·7, tarsus 0·95.

Adult female. Similar to the female of *P. capensis*, but very much smaller, and having the lower back and rump deep ochreous brown, with scarcely any olive tinge. Total length 4·5 inches, culmen 0·5, wing 2·6, tail 1·3, tarsus 0·8.

Captain Shelley has united *P. phœnicomera* of the Cameroons to *P. capensis*; and, indeed, he only recognizes one species where I can trace three races with well-defined geographical ranges.

The true *P. capensis* has the wing [♂] 3·1–3·4, [♀] 3·1–3·2; *P. minor* varies from 2·75 to 3·15 in the males, and from 2·57 to 2·9 in the females; but *P. phœnicomera* has the wing 2·7–2·8 in the males and 2·5 in the females.

The bill is extremely large in the males of *P. capensis*, but it is difficult to draw the line between them and *P. minor*, while *P. phœnicomera* has a still smaller bill. The female is also much darker below and has less distinct stripes.

Hab. Confined to the Cameroons Mountains in Western Africa.

| | | |
|-------------------------------------|--|--|
| a. ♂ ; b, c. ♀ ad. ;
d. Juv. sk. | Cameroons Mountains,
7000 feet. | Sir R. Burton [P.].
(Types of species.) |
| e, f. ♂ ♀ ad. ; g.
♂ imm. sk. | Cameroons Mountains,
Oct., 8000 feet. | H. H. Johnston, Esq.
[P.]. |
| h, i. ♂ ad. sk. | Cameroons Mountains,
Nov., 10,000 feet. | H. H. Johnston, Esq.
[P.]. |
| k, l. ♂ ♀ ad. sk. | Cameroons Mountains,
Sept., 9–10,000 feet
(<i>H. H. Johnston</i>). | Shelley Coll. |

11. *Pyromelana xanthomelana*.

Euplectes xanthomelas, *Rüpp. Neue Wirb., Vög.* p. 94 (18
Syst. Uebers. p. 76, pl. 28 (1845); *Bp. Consp.* i. p. 4
Heugl. Syst. Uebers. p. 38 (1856); *Antin. Cat. descr.*

* This name is somewhat inapplicable for a bird which is half half yellow !

- (1864); *Kirk, Ibis*, 1864, p. 322; *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 186 (1884), vi. p. 289 (1888).
Ploceus xanthomelas, *Gray, Gen. B.* ii. p. 352 (1849); *id. Hand-l. B.* ii. p. 45, no. 6634 (1870); *Sperling, Ibis*, 1868, p. 290.
Orynx approximans, *Cab. Mus. Hein. Th.* i. p. 177 (1850), *teste Cab. J. f. O.* 1878, p. 231.
Orynx xanthomelas, *Cab. Mus. Hein. Th.* i. p. 177, note (1850); *Reichenb. Singv.* p. 59, Taf. xxiv. figs. 207-209 (1861); *Cab. J. f. O.* 1878, p. 231; *Fischer & Reichen. J. f. O.* 1879, p. 351.
Pyromelana xanthomelas, *Horsf. & Moore, Cat. B.* ii. p. 519 (1858).
Euplectes capensis (*nec L.*), *Heugl. Orn. N.O.-Afr.* ii. p. 573 (1870).
Pyromelana capensis (*nec L.*), *Finsch & Hartl. Vög. Ostaf.* p. 403 (1870).
Orynx capensis, *Fischer, J. f. O.* 1885, p. 134.
Coliuspasser xanthomelas, *Shelley, Ibis*, 1886, p. 350, 1888, p. 293.

Adult male. Similar to *P. capensis*, but distinguished by its entirely black thighs: "bill black, the lower mandible yellowish horn-colour; feet reddish; iris dusky" (*Heuglin*). Total length 6 inches, culmen 0.65, wing 3.15, tail 2.3, tarsus 0.85.

The birds from the Shire Valley, though referable to *P. xanthomelana*, are much smaller (wing 2.65-2.7 inches) than individuals from more northern localities.

Hab. From Abyssinia south to the Zambesi, and westwards to Angola.

| | | |
|-------------------|--|-------------------------------|
| a, b. ♂ ad. sk. | Abyssinia. | Dr. Rüppell [C.]. |
| c. ♀ ad. sk. | Abyssinia (<i>Dr. Rüppell</i>). | Gould Coll. |
| d, e. ♂ ♀ ad. sk. | Lake Ashangi, May. | W. T. Blanford, Esq.
[P.]. |
| f. ♂ hiem. sk. | Ankober, Shoa, Jan. 1842
(<i>Sir W. C. Harris</i>). | India Museum. |
| g. ♂ hiem. sk. | Angollala, May 1842 (<i>Sir W. C. Harris</i>). | India Museum. |
| h. ♂ ad. sk. | Denz, Shoa, May 28 (<i>O. Antinori</i>). | Shelley Coll. |
| i. ♂ ad. sk. | Shoa, Sept. (<i>O. Antinori</i>). | Shelley Coll. |
| k. ♂ ad. sk. | Kitui in Ukamba, April
(<i>Dr. Hildebrandt</i>). | Shelley Coll. |
| l. ♂ ad. sk. | Usambara Mountains (<i>Sir J. Kirk</i>). | Shelley Coll. |

12. *Pyromelana afra*.

- Black-bellied Grosbeak, *Brown, Ill. Zool.* p. 58, pl. 24. fig. 2 (1776)
Lath. Gen. Syn. ii. pt. i. p. 155 (1783).
Loxia afra, *Gm. Syst. Nat.* i. p. 857 (1788).
Loxia melanogastra, *Lath. Ind. Orn.* i. p. 394 (1790).
Worabée, *Vieill. Ois. Chant.* p. 52**, pl. xxviii.** (1805).
Fringilla abyssinica, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 232 (1817).
Coccothraustes melanogastra, *Vieill. tom. cit.* p. 542 (1817).
Fringilla ranunculacea, *Licht. Verz. Doubl.* p. 23 (1823).
Euplectes abyssinicus, *Cab. Mus. Hein. Th.* i. p. 178 (1850); *Forbes, Ibis*, 1883, p. 514.
Euplectes melanogaster, *Swains. B. West Afr.* i. p. 182 (1837); *Bp. Consp.* i. p. 447 (1850); *Hartl. Orn. W.-Afr.* p. 128 (1857); *Bocage, Journ. Lisb.* v. p. 257 (1876); *id. Orn. Angola*, p. 337 (1877-81); *Hartert, J. f. O.* 1886, p. 585.
Euplectes afer, *Hartl. Beitr. Orn. Westafr.* p. 29 (1848); *Sharpe, Ibis*, 1870, p. 56; *id. Cat. Afr. B.* p. 62 (1871); *Ussher, Ibis*, 1874, p. 69.
Ploceus afer, *Gray, Gen. B.* ii. p. 352 (1849); *id. Hand-l. B.* ii. p. 46, no. 6646 (1870).
Ploceus abyssinicus, *Gray, Gen. B.* ii. p. 352 (1849).
Pyromelana afra, *Shelley, Ibis*, 1883, p. 552; *id. Ibis*, 1886, p. 355.

Adult male. Black and yellow like *P. taha*, but distinguished by the sides of the body being bright yellow, as well as a broad collar across the fore neck, this collar having more or less of a rich orange shade. Total length 4·2 inches, culmen 0·55, wing 2·2, tail 1·15, tarsus 0·75.

Adult female. Similar to the female of *P. taha*, but very much smaller. It has the same broad eyebrow, but is tinged with yellow on the lores, sides of face, and chest. Total length 4·1 inches, culmen 0·5, wing 2·05, tail 1·05, tarsus 0·6.

Hab. West Africa, from Senegambia to the Niger and Fernando Po. ? Angola.

| | | |
|------------------|--------------------------------------|---------------------|
| a. ♂ ad. sk. | Senegambia. | Forbes Coll. |
| b. ♂ ad. sk. | Senegambia. | Purchased. |
| c. ♂ ad. sk. | Ashantee. | J. Gould, Esq. |
| d, e. ♂ ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| f. ♂ ad. sk. | Fantee. | Sharpe Coll. |
| g. ♂ ad. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| h. ♀ ad. sk. | Accra (<i>J. Smith</i>). | Sharpe Coll. |
| i. ♂ ad. sk. | Accra (<i>J. Smith</i>). | Shelley Coll. |
| k. ♂ ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| l-m. ♂ ♀ ad. sk. | Egga, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| n. ♂ ad. sk. | Fernando Po. | Capt. Thomson [P.]. |

13. *Pyromelana scioana*.

- Euplectes abyssinicus (nec V.)*, *Rüpp. Neue Wirb., Vög.* p. 96 (1835-40); *id. Syst. Uebers.* p. 76 (1845); *Heugl. Syst. Uebers.* p. 38 (1856).

? *Euplectes strictos*, *Heugl. Syst. Uebers.* p. 39 (1856).

? *Euplectes strictus*, *Hartl. Orn. W.-Afr.* p. 129, note (1857); *Gray, Hand-l. B.* ii. p. 46, no. 6644 (1870).

Euplectes habessinica, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 575 (1870, pt.)^{*}.

Euplectes scioanus, *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 185 (1884); *id. op. cit.* (2) vi. p. 289 (1888).

Euplectes taha scioanus, *Reichen. J. f. O.* 1885, p. 218.

Pyromelana scioana, *Shelley, Ibis*, 1886, p. 354.

Adult male. General colour above golden yellow, except on the mantle, which forms a black band across and separates the head and neck from the back and rump; entire crown of head, hind neck, and sides of neck golden yellow; mantle and scapulars black, some of the feathers fringed with golden yellow, more broadly where they adjoin the back, which, with the rump and upper tail-coverts, is golden yellow; wing-coverts and quills edged with whitish brown, lighter on the greater coverts and quills, except near the base of the secondaries, where the latter are margined with yellowish; tail-feathers dark brown, margined with yellowish buff; lores and a narrow line across the base of the forehead black, the adjoining part of the forehead being slightly tinged with rufous; a narrow line surrounding the eye, sides of face, ear-coverts, cheeks, and under-surface of body black, the fore neck with concealed yellow bases to the feathers; thighs, vent, and under tail-coverts golden yellow; axillaries and under wing-coverts pale tawny buff, with dusky bases; quills dusky below, ashy fulvous along the inner web: "bill black; feet dusky; iris chestnut" (*Antinori*). Total length 5.7 inches, culmen 0.55, wing 2.75, tail 1.75, tarsus 0.75.

Similar to *P. taha*, but much larger; the feathers of the fore neck with concealed yellow bases, and the sides of the breast without the yellow patch conspicuous in *P. taha*.

Hab. Shoa, extending into Abyssinia.

a, b. ♂ ad. sk.

Tuor-Hamesch, Shoa, Aug. 18,
1877 (*A. Antinori*).

Shelley Coll.

14. *Pyromelana taha*.

Euplectes taha, *Smith, Report Exped. C. Afr.* p. 50 (1836); *id. Ill.*

Euplectes abyssinicus (*nec V.*), *Strickl. & Sclater, Contr. Orn.* 1852, p. 150.

Taha dubia, *Reichenb. Singv.* p. 73 (1831).

Pyromelana taha, *Sharpe, ed. Layard's B. S. Afr.* p. 465 (1884); *Shelley, Ibis*, 1886, p. 354; *Büttik. Notes Leyden Mus.* xi. p. 75 (1888).

Adult male. General colour above bright golden yellow, the feathers of the back and rump voluminous and uniform bright yellow; centre of back yellow, with a broad black streak on each side of the mantle; the lateral feathers with black centres like the scapulars, the outer ones of which are entirely black; wing-coverts blackish, with whity-brown margins; bastard-wing, primary-coverts, and quills black, edged with whity brown, the secondaries more broadly and slightly tinged with yellow; upper tail-coverts bright yellow; tail-feathers blackish, edged with whity brown; crown of head golden yellow, separated from the back by a broad black collar round the hind neck; feathers at base of bill, lores, eyelid, ear-coverts, cheeks, sides of neck, and entire under surface of body velvety black, with a patch of yellow feathers on the sides of the upper breast; thighs and under tail-coverts yellow; under wing-coverts and axillaries isabelline, the former ashy brown at the base; quills below dusky brown, isabelline along the inner edge: "bill black; feet dusky brown; iris dusky" (*T. Ayres*). Total length 4.4 inches, culmen 0.5, wing 2.55, tail 1.3, tarsus 0.75.

In winter, according to Mr. Ayres, the male, which is brown like the adult female, has the bill pale dusky, darker along the culminal ridge.

Adult female. Different from the male. Brown, streaked with black centres to the feathers; wing-coverts, quills, and tail-feathers blackish, broadly edged with brown; head like the back, but more narrowly streaked; over the eye a broad streak of yellowish buff, widening above the ear-coverts, which are brown, with a blackish line along the upper margin; under surface of body sandy brown, streaked with black on the lower throat, breast, and sides of body, more broadly on the flanks; throat and abdomen whiter, especially the latter, both unspotted; under wing-coverts and axillaries isabelline, with a tinge of yellow on the edge of the wing: "upper mandible light dusky brown, the under mandible paler; tarsi and feet light dusky brown; iris light umber-brown" (*T. Ayres*). Total length 4.2 inches, culmen 0.5, wing 2.4, tail 1.25, tarsus 0.7.

Hab. Interior of S.E. Africa from about 26° S. lat.; from the Orange Free State to Natal and the Transvaal, extending to Ovampo-Land in the west.

| | | |
|--------------------------|---|---------------------|
| <i>a.</i> ♂ ad. st. | South Africa. | Earl of Derby [P.] |
| <i>b, c.</i> ♂ ♀ ad. sk. | South Africa. | Sir A. Smith [C.] |
| | | (Types of species.) |
| <i>d.</i> ♀ ad. sk. | South Africa (<i>Sir A. Smith</i>). | Gould Coll. |
| <i>e.</i> ♀ ad. sk. | Lower Umgeni River, Natal,
July 21 (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>f.</i> ♂ juv. sk. | Natal. | Sharpe Coll. |

| | | |
|--|--|----------------------------|
| g. ♀ ad. sk. | Durban (Gordge). | Shelley Coll. |
| h. ♂ ad. sk. | Transvaal (T. Ayres). | Sharpe Coll. |
| i, k. ♂ ad. sk. | Transvaal (T. Ayres). | Shelley Coll. |
| l, m, n. ♂ ad. et
juv.; o, p, q.
♀ ad. sk. | Potchefstroom, Jan., June (T.
Ayres). | Shelley Coll. |
| r, s. ♂ juv., ♀
ad. sk. | Potchefstroom, Jan., Feb. (T.
Ayres). | J. H. Gurney, Esq.
[P.] |
| t. ♂ ad. sk. | Potchefstroom, Feb. 3 (T.
Ayres). | Forbes Coll. |
| u, v. ♂ ♀ ad. sk. | Potchefstroom, Jan., March
(T. Ayres). | H. Seebohm, Esq.
[P.] |
| w. ♂; x, y. ♀ ad.
sk. | Ondonga, Ovampo-Land, Nov.
1886 (C. J. Anderson). | Sharpe Coll. |
| z ♂ ad. sk. | Ondonga, Jan. 22 (C. J. A.). | Tweeddale Coll. |

15. *Pyromelana ladoensis*.

- Euplectes taha* (nec Smith), *Antin. Cat. Ucc.* p. 93 (1864); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 103 (1841), viii. p. 201 (1883); *Pelz. Verh. z.-b. Gesellsch. Wien*, xxxii. p. 506 (1882).
Euplectes habessinica, pt., *Heugl. Orn. N.O.-Afr.* i. p. 575 (1870).
Euplectes abyssinicus (nec V.), *Antin. & Salvad. Viagg. Bogot*, p. 118.
Euplectes ladoensis, *Reichen. J. f. O.* 1885, p. 218.
Euplectes taha ladoensis, *Reichen. t. c.*
Pyromelana sticta (nec Heugl.), *Shelley, Ibis*, 1886, p. 354.
Pyromelana ladoensis, *Shelley, P. Z. S.* 1888, p. 33.

Adult male. Similar to *P. taha*, but much smaller, and distinguished by a little more yellow on the sides of the body; the feathers below the yellow patch on the sides of the breast slightly mottled with yellow bases, and the feathers of the sides of the body with narrow yellow edges. Total length 4.2 inches, culmen 0.55, wing 2.25, tail 1.1, tarsus 0.65.

The amount of yellow on the sides of the body seems to vary a good deal.

Hab. North-eastern Africa, from the Eastern Soudan and White Nile districts to Lamo.

Key to the Species.

- a. Crown of head black; eyebrow white.
 - a'. No black markings or spots on the fore neck.
 - a''. Bill pale horn-brown *mahali*, p. 245.
 - b''. Bill black *melanorhynchus*, p. 246.
 - b'. With black markings on the fore neck.
 - a''. Bill black *pectoralis*, p. 247.
 - b''. Bill brown *propinquatus*, p. 247.
- b. Crown of head ashy grey with a broad lateral stripe of black; eyebrow ashy grey; back rufous-brown *rufoscapulatus*, p. 248.
- c. Crown tawny rufous; eyebrow whitish; bill pale *superciliosus*, p. 248.

1. *Ploceipasser mahali*.

Ploceipasser mahali, *Smith, Rep. Exped. C. Afr.* App. p. 51 (1836); *id. Ill. Zool. S. Afr., Aves*, p. 65 (1841); *Gray, Gen. B.* ii. p. 354 (1849); *Bp. Consp.* i. p. 443 (1850); *Gray, Hand-l. B.* ii. p. 47, no. 6655 (1870); *Ayres, Ibis*, 1871, p. 256; *Sharpe, Cat. Afr. B.* p. 61 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 106 (1872); *Buckley, Ibis*, 1874, p. 380; *Bocage, Orn. Angola*, p. 318 (1877-81); *Ayres, Ibis*, 1880, p. 263; *Sharpe in Oates' Matabele-Land, App. B.* p. 321 (1881); *Shelley, Ibis*, 1882, p. 351; *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 120, cum fig. (1882); *Sharpe, ed. Layard's B. S. Afr.* pp. 447, 848 (1884); *Shelley, Ibis*, 1887, p. 5.

Leucophrys pileatus, *Swains. Classif. B.* ii. p. 287 (1837).

Philagrus mahali, *Cab. Mus. Hein. Th.* i. p. 179 (1850).

Agrophilus hæmatocephalus, *Licht. Nomencl. Av. Mus. Berol.* p. 50 (1854).

Ploceipasser pileatus, *Layard, B. S. Afr.* p. 187 (1867).

Adult male. General colour above light brown; scapulars like the back; lower back, rump, and upper tail-coverts pure white; lesser wing-coverts rather more ashy brown than the back; median coverts brown, with a broad white ending forming a bar; greater coverts blackish, tipped with white, forming a second wing-bar but not so broad; bastard-wing, primary-coverts, and quills dark brown, broadly edged with light fawn-colour or whity brown, the inner secondaries resembling the innermost greater coverts; tail-feathers dark brown, edged with lighter brown and tipped with white; crown of head black, as far as the occiput and nape; hind neck brown, as also the sides of the neck; lores, feathers round eye, and cheeks black; sides of face and ear-coverts brown, above the latter a broad white eyebrow extending to the sides of the neck; throat white; sides of neck brown like the back; remainder of under surface of body isabelline, browner on the sides of the breast, sides of body, and flanks; lower breast, abdomen, thighs, and under tail-coverts isabelline whitish; under wing-coverts and axillaries isabelline; quills below dusky brown, ashy isabelline along the inner edge: "bill, feet, and toes yellowish red" (*C. J. Andersson*): "bill dusky, nearly black; tarsi and feet pale brown; iris bright red-

brown" (*T. Ayres*). Total length 6·8 inches, culmen 0·65, wing 3·9, tail 2·3, tarsus 0·9.

Adult female. Similar to the male, but rather smaller: "bill light dusky brown, paler on the lower mandible" (*T. Ayres*). Total length 7 inches, culmen 0·65, wing 3·85, tail 2·5, tarsus 0·9.

Hab. South Africa from the Orange River to Damara-Land and Benguela on the west, and to Matabele-Land on the east.

| | | |
|-----------------------------------|---|---|
| <i>a.</i> Ad.; <i>b.</i> Juv. sk. | South Africa. | Sir A. Smith [C.].
(Types of species.) |
| <i>c.</i> Ad. sk. | South Africa (<i>Sir A. Smith</i>). | Purchased. |
| <i>d, e.</i> ♂ ad. sk. | Griqua-Land, May (<i>T. C. Atmore</i>). | Shelley Coll. |
| <i>f.</i> ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |
| <i>g, h.</i> ♂ ad. sk. | Matabele-Land, Sept. (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>i.</i> ♂ ad. sk. | Palatsie River, near Shoshong, Aug. 13, 1874 (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.] |
| <i>k, l.</i> Ad. sk. | Mataloko, Damara-Land, July 14, 1866 (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>m.</i> ♀ ad. sk. | Rio Chimba, Mossamedes (<i>J. Anchieta</i>). | Sharpe Coll. |
| <i>n.</i> ♂ ad. sk. | Maconjo, Aug. (<i>J. Anchieta</i>). | Shelley Coll. |
| <i>o.</i> Ad. sk. | Capangombe (<i>J. Anchieta</i>). | Shelley Coll. |

2. *Ploceipasser melanorhynchus*.

Ploceus superciliosus, *Des Murs in Lefebvre's Voy. Abyss.* p. 110, pl. ix. fig. 2 (1845-50).

Ploceipasser melanorhynchus, *Rüpp. Syst. Uebers.* p. 78 (1845); *Bp. Consp.* i. p. 444 (1850); *Gray, Hand-l. B.* ii. p. 47, no. 6056 (1870); *Antin. & Salvad. Viagg. Bogos*, p. 119 (1873); *Pelz. Verh. z.-b. Ges. Wien*, xxx. p. 150 (1881); *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 177 (1884), vi. p. 295 (1888); *Shelley, Ibis*, 1887, p. 5.

Philagrus melanorhynchus, *Cab. Mus. Hein. Th.* i. p. 179, note (1850); *Heugl. Orn. N.O.-Afr.* p. 538, pl. 21 (1870), iv. p. cxxviii (1871); *Cab. J. f. O.* 1878, p. 232; *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 101 (1881); *Fischer, Zeitschr. ges. Orn.* i. p. 328 (1884); *id. J. f. O.* 1885, p. 134.

Ploceipasser malali (*nec Smith*), *Heugl Syst. Uebers.* p. 43 (1856);

the ear-coverts, which are dark brown; cheeks black, continued into a broad line along the sides of the throat, which is white like the rest of the under surface, with a large patch of light brown on the sides of the lower breast; thighs and under tail-coverts white; under wing-coverts and axillaries dark brown; quills below dusky brown, lighter along the inner edge: "bill blackish; feet reddish brown; iris chestnut" (*Heuglin*). Total length 7 inches, culmen 0·7, wing 4·05, tail 2·6, tarsus 0·9.

Adult female. Similar to the male in colour. Total length 7 inches, culmen 0·65, wing 4·05, tail 2·5, tarsus 0·9.

Hab. N.E. Africa from Bogos-Land and the Upper Nile districts to Ukamba and Masai-Land.

| | | |
|-------------------------------------|--|-----------------------|
| <i>a.</i> Ad. sk. | Khartoum (<i>Knoblecker</i>). | Sharpe Coll. |
| <i>b, c.</i> Ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Mus. |
| <i>d.</i> ♂ ad. sk. | Ambukarra, Shoa, Aug. 13
(<i>O. Antinori</i>). | Shelley Coll. |
| <i>e.</i> Ad. sk. | White Nile. | Purchased. |
| <i>f, g.</i> ♂; <i>h.</i> ♀ ad. sk. | Lado, Equatorial Africa, March
(<i>Emin Pasha</i>). | Shelley Coll. |
| <i>i.</i> ♀ ad. sk. | Kitui in Ukamba, May 1877. | Dr. Hildebrandt [C.]. |
| <i>k.</i> ♂ ad. sk. | Kitui, May (<i>Dr. Hildebrandt</i>). | Shelley Coll. |

3. *Ploceipasser pectoralis*.

Agrophilus melanorhynchus (*nec Rüpp.*), *Licht. Nomencl. Av. Berol.* p. 50 (1854).

Philagrus pectoralis, *Peters, J. f. O.* 1868, p. 133; *Heugl. Orn. N.O.-Afr.* p. 539, note (1870); *Finsch & Hartl. Vög. Ostaf.* p. 387 (1870).

Ploceipasser pectoralis, *Gray, Hand-l. B.* ii. p. 47, no. 6658 (1870).

Adult. Similar to *P. mahali*, but smaller, rather more rufous-brown in colour, and is further distinguished by its black bill and especially by the black markings across the fore neck. Total length 6·4 inches, culmen 0·7, wing 3·75, tail 2·4, tarsus 0·85.

Hab. South-eastern Africa from the Zambesi to Inhambane.

a, b, c. Ad. sk. Tete, Zambesi (*Sir J. Kirk*). Livingstone Expedition.

4. *Ploceipasser propinquatus*.

Ploceipasser propinquatus, *Shelley, Ibis*, 1887, p. 6 (*ex Oustalet, MSS. in Mus. Paris*).

Adult. Similar to *P. pectoralis*, but distinguished by the pale brown bill and the less distinct spots on the throat (*Shelley*).

Hab. Somali-Land.

5. *Ploceipasser rufoscapulatus*.

Ploceipasser rufoscapulatus, *Büttik. Notes Leyden Mus.* x. p. 238, pl. 9. fig. 2 (1888).

Adult male (type of species). General colour above rufous chocolate; lower back, rump, and upper tail-coverts more ashy brown, the latter much clearer ashy; lesser wing-coverts rufous-brown like the back; median and greater series black, tipped with white, the former rather browner and forming a double wing-bar; bastard-wing, primary-coverts, and quills blackish, fringed with light brown, more rufous on the secondaries, the inner secondaries edged with isabelline, like the greater coverts; tail uniform light brown; centre of crown ashy grey like the hind neck; base of forehead and a broad lateral stripe on the crown black, followed by a broad eyebrow of grey; lores, feathers round the eye, and a stripe along the upper edge of the ear-coverts black; ear-coverts and cheeks ashy grey, the latter whiter anteriorly; throat white, separated from the cheeks by a distinct malar stripe of black from the chin, widening out below; lower throat and fore neck and chest light ashy grey, with a shade of ochreous brown on the lower throat; remainder of under surface of body greyish white, a little more ashy on the lower flanks; thighs and under tail-coverts ashy white; under wing-coverts ashy white, the lower greater coverts ashy brown, the outer coverts also mottled with ashy brown; quills dusky brown below, isabelline along the inner edge: "bill and feet horn-colour; iris dark brown" (*Van der Kellen*). Total length 6.2 inches, culmen 0.75, wing 3.8, tail 2.3, tarsus 0.8. (*Mus. Lugd.*)

Hab. Cunene River, S.W. Africa.

6. *Ploceipasser superciliosus*.

Ploceus superciliosus, *ex Rüpp. MSS., Cretzschm. in Rüpp. Atlas, Vög.* p. 24, pl. 15 (1828).

Ploceipasser superciliosus, *Smith, Rep. Exped., C. Afr. App.* p. 51, note (1836); *Rüpp. Syst. Uebers.* p. 78 (1845); *Gray, Gen. B.* ii. p. 354 (1849). *Sp. Consp.* i. p. 179, note (1850); *Hemph. Syst.*

brown margins; crown of head tawny rufous as far as the nape; hind neck like the back; lores and a distinct eyebrow white; eyelid and feathers below the eye white; ear-coverts rufous-brown, surmounted by a narrow line of tawny rufous; cheeks whitish, followed by a broad malar stripe of black; throat white; fore neck and remainder of under surface pale ashy, whiter on the lower breast and abdomen, thighs, and under tail-coverts; under wing-coverts and axillaries ashy whitish; quills below dusky, isabelline along the inner edge: "bill and feet rufous horn-colour; iris dusky rufous" (*Heuglin*). Total length 6·3 inches, culmen 0·65, wing 3·5, tail 2·5, tarsus 0·8.

Hab. Senegambia to the Niger. N.E. Africa, from Bogos-Land to Shoa.

| | | |
|------------------------|------------------------------------|---------------|
| <i>a.</i> Ad. sk. | Senegambia. | Purchased. |
| <i>b.</i> Ad. sk. | Bogos-Land (<i>Esler</i>). | Sharpe Coll. |
| <i>c.</i> Ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Museum. |
| <i>d, e.</i> ♂ ad. sk. | Shoa, Nov. (<i>O. Antinori</i>). | Shelley Coll. |

11. PHILÆTERUS.

Philetairus, *Smith in Charlesw. Mag.* 1837, p. 536. *Type.* *P. socius*.

Range. Confined to Africa.

Key to the Species.

- a.* Upper plumage and flanks scaly, with white edges to the feathers; head brown *socius*, p. 249.
- b.* No scaly markings on back or flanks.
 - a'.* Bill black; head pearly grey; under surface of body drab-brown like the back } *arnaudi*, p. 250.
 - b'.* Bill yellow; head black; under surface of body white, with black on the sides of the body and in the centre of the breast } *dorsalis*, p. 251.
 - *cabanisi*, p. 251.

1. *Philæterus socius*.

Social Grosbeak, *Paterson's Voyage*, p. 126, pl. 19.

Loxia socia, *Lath. Ind. Orn.* i. p. 381 (1790, ex *Paterson*).

Coccothraustes socia, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 540 (1817).

Ploceus socius, *Cur. Règne Anim.* i. p. 384 (1817).

Philæterus lepidus, *Smith in Charlesw. Mag.* 1837, p. 536; *id. Ill. Zool. S. Afr.*, *Ares*, pl. 8 (1838).

Euplectes lepidus, *Sicains. An. in Menag.* p. 309 (1837); *Chapm. Trav. S. Afr.*, App. p. 401 (1848).

Philæterus socius, *Gray, Gen. B.* ii. p. 353 (1849); *Bp. Conspect.* i. p. 445 (1850); *Layard, B. S. Afr.* p. 186 (1867); *Ayres, Ibis*, 1871, p. 253; *Sharpe, Cat. Afr. B.* p. 61 (1871); *Gurney in Anders. B. Dam.-Ld.* p. 167 (1872); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 119 (1882); *Sharpe, ed. Layard's B. S. Afr.* p. 449 (1884); *Shelley, Ibis*, 1885, p. 207.

Adult male. General colour above brown, the feathers of the

hind neck, mantle, and upper back having a scaly appearance, being edged with pale ochreous or sandy buff, before which is a subterminal shade of black; rump and upper tail-coverts pale brown, with whitish margins, more distinct on the latter; quills brown, edged with paler brown, inclining to whity brown on the greater coverts and inner secondaries; tail-feathers blackish, brown externally and at the ends, with a white spot near the tip of the inner web; centre tail-feathers light brown; head uniform drab-brown; eyelid white; lores, feathers in front of the eye, fore part of cheeks and chin, and upper throat black; remainder of sides of face, ear-coverts, hinder cheeks, and under surface of body from the middle of the throat downwards pale drab-brown, the sides of the neck mottled with scaly black markings like the back; on the sides of the body a patch of scaly feathers, black, with sandy-white margins; axillaries and under wing-coverts like the breast: "bill pale livid horn-colour; legs and toes light brownish horn-colour; iris dark brown" (*C. J. Andersson*). Total length 5.4 inches, culmen 0.6, wing 2.9, tail 1.7, tarsus 0.8.

Young. Similar to the adults, but more distinctly mottled above with sandy-brown edges to the feathers; the head also minutely spotted with black; the patch of scaly feathers on the side of the body not so distinctly pronounced.

Hab. Southern Africa from the interior districts to the Transvaal and north of the Diamond Fields to Damara-Land, not occurring south of the Orange River.

| | | |
|------------------------------|----------------------------------|---|
| <i>a, b.</i> Ad. et juv. sk. | Latakeo. | Sir A. Smith [C.]
(Types of <i>P. lepidus</i> .) |
| <i>c.</i> ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |
| <i>d.</i> ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Shelley Coll. |
| <i>e.</i> ♂ juv. sk. | Damara-Land. | C. J. Andersson [C.]. |
| <i>f.</i> Juv. sk. | Damara-Land (<i>C. J. A.</i>). | Sharpe Coll. |

2. *Philæterus arnaudi*.

Nigrita arnaudi, *Bp. Consp.* i. p. 444 (1850, ex *Pucher. MSS.* in *Mus. Paris*); *Hartl. Orn. W.-Afr.* p. 131, note (1857); *Gray, Hand-l. B.* ii p. 46, no. 6049 (1870); *Hengl. Orn. N O-Afr.*

drab-brown like the back; bastard-wing, primary-coverts, and quills black, tipped with drab-brown, the secondaries edged with the same colour, the innermost being externally drab-brown, internally black; upper tail-coverts like the back; tail-feathers blackish, broadly tipped with drab-brown, white at the ends, extending along the outer web of the outermost; crown of head and nape pearly grey; lores drab-brown; eyelid whitish; ear-coverts, cheeks, throat, and under surface of body drab-brown, including the thighs, under wing- and tail-coverts, and axillaries; quills below dusky brown, isabelline along the inner edge: "bill black; feet dusky flesh-colour; iris chestnut" (*Heuglin*). Total length 4·6 inches, culmen 0·5, wing 2·55, tail 1·25, tarsus 0·65.

Hab. N.E. Africa. Upper White-Nile districts to Equatorial Africa and the Lake regions.

| | | |
|--------------|--|------------------|
| a. Ad. sk. | White Nile. | Purchased. |
| b. ♂ ad. sk. | Redjaf, Equatorial Africa, July 3
(<i>Emin Pasha</i>). | Shelley Coll. |
| c. ♀ ad. sk. | Redjaf, December 2. | Emin Pasha [P.]. |
| d. ♂ ad. sk. | Lado, March (<i>Emin Pasha</i>). | Shelley Coll. |
| e. ♂ ad. sk. | Waso-neibor, Masai-Land, April 13
(<i>Dr. Fischer</i>). | Shelley Coll. |

3. *Philæterus dorsalis*.

Nigrita canidorsalis, *Reichen. J. f. O.* 1887, p. 41 (*lapsu cal.*).

Nigrita dorsalis, *Reichen. t. c.* p. 71.

Similar to *P. arnaudi*, but differing in its grey back, darker grey shoulders, clear grey head, in wanting the black tail-bands and black loreal spot: "bill black; feet reddish brown; iris brown" (*Fischer*). (*Reichenow*.)

Hab. Wembaere Steppes and Speke Gulf on the Victoria Nyanza (*Fischer*).

4. *Philæterus cabanisi*.

Nigrita cabanisi, *Fischer & Reichen. J. f. O.* 1884, p. 54; *Fischer, Zeitschr. ges. Orn.* i. p. 330 (1884); *id. J. f. O.* 1885, p. 134; *Reichen. J. f. O.* 1887, p. 71.

Philæterus cabanisi, *Shelley, Ibis*, 1886, p. 308; *id. Ibis*, 1888, p. 292, pl. vi.

Adult female. General colour above clear drab-brown, the upper tail-coverts a little more blackish brown; wing-coverts like the back; quills ashy brown, externally like the back; tail-feathers blackish, the outer ones fringed with white along the end of the inner web; crown of head, lores, feathers round eye and upper part of ear-coverts black; remainder of sides of face, cheeks, and under surface of body white, with a streak of black down the centre of the breast; sides of body and flanks drab-brown, the feathers mottled with black spots; thighs and under tail-coverts white; under wing-coverts and axillaries white, the outer coverts pale drab; quills below pale dusky, ashy along the inner edge: "bill

horn-colour, greenish towards the base; feet flesh-colour; iris red" (*G. A. Fischer*). Total length 5 inches, culmen 0·6, wing 2·6, tail 1·8, tarsus 0·7.

Adult male. Similar in plumage to the female. Total length 4·7 inches, culmen 0·6, wing 2·7, tail 1·9, tarsus 0·7.

Hab. Kilimanjaro district to the East Coast.

a, b. ♂; c. ♀ ad. sk.

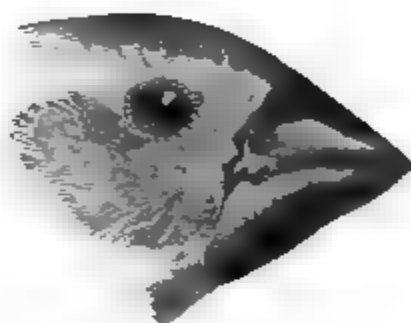
Kilimanjaro,

F. J. Jackson, Esq. [P.]

March 14, 1887.

12. PYRENESTES.

Pyrenestes, Swains. B. W. Afr. i. p. 156 (1887)..... ^{Type.} *P. ostrinus.*



Bill of *Pyrenestes ostrinus*, to show tooth in tomium.

Range. Confined to West Africa.

1. *Pyrenestes ostrinus*.

Loxia ostrina, *Vieill. Ois. Chant. p. 79, pl. 48 (1805).*

Coccothraustes ostrinus, *Vieill. N. Dict. d'Hist. Nat. xiii. p. 548 (1817).*

Pyrenestes sanguineus, *Swains. B. W. Afr. p. 156, pl. 9 (1887).*

Pyrenestes ostrinus, *Gray, Gen. B. ii. p. 356 (1844); Bp. Consp. i. p. 450 (1850); Hartl. Orn. W.-Afr. p. 139 (1857); Gray, Hand-l. B. ii. p. 49, no. 6678 (1870); Sharpe, Cat. Afr. B. p. 68 (1871); Forbes, Ibis, 1883, p. 526; Shelley, t. c. p. 549; Shelley, Ibis, 1886, p. 314 (pt.).*

Adult male. General colour above velvety black, from the hind neck to the rump; scapulars like the back: rump and upper tail-coverts bright crimson; lower-coverts and under-parts brownish black; tail-

crimson. Total length 5·5 inches, culmen 1·7, wing 2·4, tail 2·5, tarsus 0·8.

Hab. West Africa from Senegambia to the Niger. * Gabon.

| | | |
|---------------|-------------------|--------------|
| a. [♀] ad sk | River Gambou | Sigbee Coll. |
| b. [♀] ad sk | River Gambou | Sharpe Coll. |
| c. [♀] ad sk | River Gambou | Forbes Coll. |
| d. [♀] juv sk | River Gambou | Forbes Coll. |
| e. ♂ ad sk | Savanna 24. 1897. | |
| | Nov 1892 W A P. | Forbes Coll. |

2. *Pyrrhonyx castaneus*.

Pyrrhonyx castaneus, *Cass. Proc. Philad. Acad.* 1844, p. 61. *Id. Journ. Philad. Acad.* p. 262 p. 51. 1844, *Hall Orn. W. Afr.* p. 136. 1857, *Cass. Proc. Philad. Acad.* 1860, p. 181; *Sharpe, Ibis* 1870, p. 55. *Gray, Hand. B.* p. 49, no. 618 (1871), *Sharpe, Cat. Afr. B.* p. 62 (1871), *Hacken & J. O.* 1876, p. 41, 1877, p. 31.

Pyrrhonyx personatus, *De Hue, Bull. Acad. Mus. nat. p. 1* p. 101 (1855); *Hall Orn. W. Afr.* p. 136 (1857), *Gray, Hand. B.* p. 49, no. 618 (1871), *Hacken & J. O.* 1876, p. 41. *Büttikofer, Notiz. Leyden Mus.* vi. p. 116 (1893), p. 117 (1894), vii. p. 233 (1895), x. p. 31 (1896). *Hacken & J. O.* 1897, p. 41.

Pyrrhonyx personatus (no. V), *Hacken & J. O.* 1897, p. 41. *Linnaeus, Orn. Angola*, p. 271 (1811), *Buller, Orn. Angola*, p. 271 (1811).

Adult male. Similar to *P. personatus* but smaller in size. "bill metallic cobalt-blue; feet olive brown, eyelid cobalt blue, iris brown" (*Büttikofer*). Total length 5 inches, exposed culmen 0·6, wing 2·5, tail 2, tarsus 0·7.

Adult female. Similar to the female of *P. personatus*, but smaller: "bill dark steel-blue; feet olive brown, eyelid ochraceous; iris brown" (*Büttikofer*). Total length 4·7 inches, culmen 0·5, wing 2·4, tail 1·85, tarsus 0·75.

Young. Entirely brown, without any crimson colour whatever; tail dull red; soft parts as in adult female. (*Mus. Lugd.*)

That the male takes some time before assuming the fully adult black plumage seems to be certain, for Büttikofer discovered a colony of breeding birds in Liberia, wherein there was not a single black-backed male, and he never saw one during his residence in that country. It is evident that the black-plumaged birds are very rare, and very few specimens exist in collections. The males collected by Büttikofer vary from a light brown to a dark, almost chocolate-brown; while the females resemble the males, but are paler still, and have scarcely any wash of crimson over the brown plumage; the crimson colour of the head and throat is less vivid, and the bill is conspicuously smaller. Underneath, the colour resembles that of the male but is decidedly lighter, the red of the throat less extended and not reaching to the fore neck; the sides of the breast brown (not crimson) and with only a slight shade of red. Total length 4·7 inches, exposed culmen 0·45, wing 2·4, tail 1·8, tarsus 0·7. (*Mus. Lugd.*)

Dr. Reichenow says that in a Gaboon specimen of *P. personatus*

the bill was blue-black, the feet yellowish brown, and the eyelid white. The Cameroons specimen, which he separates as *P. coccineus*, had the bill steel-blue, the feet yellowish grey-brown, the iris clear reddish brown, and the eyelid white. These soft parts will be seen to differ somewhat from those given by Mr. Büttikofer.

Hab. West Africa from Senegambia to the Congo, extending along the Congo region to Equatorial Africa.

| | | |
|----------------|---|-----------------------|
| a. [♂] ad. sk. | Fantee. | A. Swanzy, Esq. [P.]. |
| b. [♀] ad. sk. | Fantee. | Sharpe Coll. |
| c. ♂ ad. sk. | Fantee (<i>Kirby</i>). | Shelley Coll. |
| d. ♂ ad. sk. | Gaboon. | M. Verreaux. |
| e. [♀] ad. sk. | Gaboon. | Sharpe Coll. |
| f. Juv. sk. | Gaboon. | M. DuChaillu [C.]. |
| g. ad. sk. | Gaboon (<i>DuChaillu</i>). | Tweeddale Coll. |
| h. ♀ imm. sk. | Leopoldville, Upper Congo,
Dec. | F. Boindorff [C.]. |
| i. ♂ ad. sk. | Tingui, Equatorial Africa,
July 4, 1885. | Emin Pasha [P.]. |

13. CRYPTOSPIZA.

Type.

Cryptospiza, *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 180
(1884)..... *C. reichenowi*.

Range. Confined to Africa.

1. *Cryptospiza reichenowi*.

Pytelia reichenowii, *Hartl. Ibis*, 1874, p. 106; *Reichen. J. f. O.* 1875, p. 41, pl. 2. fig. 1.

Cryptospiza reichenowii, *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 180 (1884); *Shelley, Ibis*, 1880, p. 317.

Adult. Head, neck, and under surface of body yellowish olive-brown; back, rump, upper tail-coverts, and sides of body brownish carmine-red; coverts and inner secondaries edged with brownish red: iris dark; feet and bill black. Total length 12 inches, culmen 1.1, wing 5.3, tail 4, tarsus 2. (*Hartlaub*.)

Hab. Bonjongo in the Cameroon Mountains, and extending across

Key to the Species.

- a. Crown, sides of face, and throat bright crimson.
 - a'. Some black on the throat *erythrops*, p. 255.
 - b'. No black on the throat *cardinalis*, p. 256.
- b. No crimson on the crown or throat, which may be rose-coloured in very old birds.
 - a'. Ear-coverts black like the upper throat.
 - a''. Forehead black, forming a broad band *quelea*, p. 257.
 - b''. No black on forehead *ethiops*, p. 259.
 - c''. With a little black on the forehead *intermedia*, p. 259.
 - b'. Ear-coverts sandy buff; no black on forehead or throat *russi*, p. 260.

1. *Quelea erythrops*. (Plate X. fig. 1.)

- ± *Fringilla erythrocephala*, *Des Murs in Lefebvre's Voy. Abyss.* p. 119 (1845).
- Plocus erythrops*, *Hartl. Rec. Zool.* 1848, p. 109; *Gray, Gen. B.* ii. p. 353 (1849); *Keulem. N. T. D.* iii. p. 324 (1866); *Gray, Hand-l. B.* ii. p. 45, no. 6623 (1870); *Fischer & Hartl. Vog. Ostaf.* p. 407 (1870, note); *Reichenb. Corresp. Afrik. Gesellsch.* 1874, p. 181; *id. J. f. O.* 1877, p. 28; *Bocage, Orn. Angola*, p. 319 (1877-81); *Büttik. Notes Leyden Mus.* vii. p. 194 (1885).
- Euplectes erythrops*, *Hartl. Beitr. Orn. W.-Afr.* p. 58, Taf. viii. (1848).
- Foudia erythrops*, *Bp. Conspect.* i. p. 446 (1850); *Hartl. Orn. W.-Afr.* p. 129 (1857); *Cass. Proc. Philad. Acad.* 1859, p. 134; *Hartl. J. f. O.* 1861, p. 176; *Sharpe, Cat. Afr. B.* p. 62 (1871); *id. Ibis*, 1872, p. 72; *Shelley & Buckley, Ibis*, 1872, p. 289.
- Quelea capitata*, *Du Bus, Bull. Acad. R. Brux.* xxii. pt. i. p. 151 (1855).
- Calyphantria erythrops*, *Heine, J. f. O.* 1860, p. 144.
- Quelea erythrops*, *Reichenb. Singr.* p. 67, pl. xxx. figs. 239-241 (1861); *Shelley, Ibis*, 1886, p. 356; *id. P. Z. S.* 1888, p. 33.
- Foudia hæmatocephala*, *Heugl. J. f. O.* 1864, p. 250.
- Calyphantria hæmatocephala*, *Heugl. J. f. O.* 1867, p. 390.
- Hyphantica hæmatocephala*, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 545, pl. 19 a (1870).
- Hyphantica erythrops*, *Fischer & Reichen. J. f. O.* 1879, p. 352; *Fischer, Zeitschr. ges. Orn.* i. p. 327 (1884); *id. J. f. O.* 1885, p. 134.

Adult male. General colour above brown, streaked with dark brown centres to the feathers, the mantle-feathers with paler and more sandy-brown edges; wing-coverts like the back, and similarly edged, the median coverts margined with white; the greater coverts, basard-wing, primary-coverts, and quills dark brown, with olive-yellow margins, some of which are tinged with rosy; upper tail-coverts uniform brown; tail-feathers dark brown, with olive-yellow edges; crown of head and nape crimson, as also the lores, sides of face, ear-coverts, cheeks, and throat, the latter mottled with black bases to the feathers, extending on to the fore neck; chest uniform tawny brown; breast and abdomen whitish; sides of body

flanks tawny brown, with dusky-brown centres; thighs rosy; under tail-coverts uniform isabelline buff; under wing-coverts and axillaries pale tawny buff, edged with rosy along the band of the wing; quills below dusky brown, ashy along the inner edge: "bill horn-black, with a slight tint of rose-colour; angle of mouth whitish; feet and claws pale rosy; iris dusky" (*Heuglin*). Total length 3.9 inches, culmen 0.55, wing 2.35, tail 1.3, tarsus 0.7.

An adult male from Kibiro (*Emin Pasha*) is larger (wing 2.6) and has whiter under tail-coverts.

Adult female. Different from the male. General colour above brown, streaked with darker brown centres to the feathers, the mantle-feathers margined with whitish brown; wing-coverts and quills dark brown, edged with paler brown, whitish on the median and greater coverts, and olive-yellow on the quills; upper tail-coverts like the back; tail-feathers dark brown, with lighter brown edges, tinged with olive-yellow; crown of head more uniform brown, washed with olive-yellow on the forehead; a distinct eyebrow of pale orange-yellow; lores ashy brown; ear-coverts and cheeks light tawny brown, with a reddish tinge; throat whitish, washed with tawny brown; fore neck and upper breast pale tawny brown; the lower breast and abdomen pure white; sides of body, flanks, and thighs brown; under tail-coverts isabelline buff; under wing-coverts and axillaries pale tawny brown, yellow along the edge of the wing; quills below dusky brown, ashy along the inner edge. Total length 4.1 inches, culmen 0.55, wing 2.35, tail 1.3, tarsus 0.85.

Hab. West Africa, from Senegambia extending throughout the Congo region to Angola, and across to Equatorial Africa.

| | | |
|--------------------|---|------------------|
| a. ♂ ad. sk. | Kibiro, June 3, 1886. | Emin Pasha [P.] |
| b. ♀ ad. sk. | Fantee. | Sharpe Coll. |
| c, d. ♀ ad. sk. | Accra, March 1 (<i>G. E. S.</i>). | Shelley Coll. |
| e. ♂ hiem. sk. | Prince's Island, June 1865
(<i>J. G. Keulemans</i>). | Shelley Coll. |
| f. ♀ ad. sk. | Gaboon (<i>DuChailu</i>). | Sharpe Coll. |
| g. ♂ ad. sk. | Gaboon. | M. A. Bouvier. |
| h. ♂ ad. sk. | Gaboon. | M. Verreaux. |
| i, k. ♂ ♀ imm. sk. | Gaboon (<i>DuChailu</i>). | Tweeddale Coll. |
| l. ♂ ad. sk. | Landana, Congo | M. L. Petit [C.] |

occiput, nape, and hind neck being brown, streaked with black and washed with crimson. Total length 4·5 inches, culmen 0·5, wing 2·25, tail 1·25, tarsus 0·65.

Hab. Equatorial Africa.

- a, b, c.* ♂ ; *d, e.* ♀ Lado, Equatorial Africa, June to Shelley Coll.
ad. sk. August (*Emin Pasha*).
f. ♂ ad. sk. Lado, July 17, 1879 (*Emin Forbes Coll.*
Pasha).
g, h, i. ♂ ad. sk. Wadelai, July 1885. Emin Pasha [P.]

3. *Quelea quelea*. (Plate X. fig. 3.)

- Brazilian Sparrow, *Edwards, Gleanings*, ii. p. 128, pl. 271. fig. 2 (1760).
Le Moineau à bec rouge du Sénégal, *Briss. Orn.* iii. p. 110, pl. vi. fig. 1 (1760); *Daubent. Pl. Enl.* iv. pl. 183. fig. 2.
? *Loxia sanguinirostris*, *Linn. Syst. Nat.* i. p. 303 (1766).
Emberiza quelea, *Linn. Syst. Nat.* i. p. 310 (1766, *ex Briss.*); *Gm. Syst. Nat.* i. p. 877 (1788).
Moineau du Sénégal, *Daubent. Pl. Enl.* iv. pl. 233. fig. 1; *Buff. Hist. Nat.* iii. p. 484 (1775).
Black-faced Bunting, *Lath. Gen. Syn.* ii. pt. i. p. 192 (1783).
Loxia quelea, *Daud. Traité*, ii. p. 448 (1800); *Less. Traité*, p. 446 (1831).
Diach. *Vieill. Ois. Chant.* p. 46, pls. 22, 23 (1805).
Diach. rose, *Vieill. t. c.* p. 48, pl. 24 (1805).
Fringilla quelea, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 233 (1817); *Licht. Verz. Doubl.* p. 27 (1823).
Loxia lathamii, *Smith, Rep. S. Afr. Exped., App.* p. 51 (1836).
Loxia sanguinirostris, *Hahn & Küster, Orn. Atlas*, Lief. i. Taf. 4 (1834).
Euplectes sanguinirostris, *Swains. B. W. Afr.* i. p. 188 (1837); *Hartl. Beitr. Orn. W.-Afr.* p. 30 (1848).
Ploceus sanguinirostris, *Gray, Gen. B.* ii. p. 353 (1849); *Sundev. Öfv. K. Vet.-Akad.* 1850, p. 126; *Strickl. & Schl. Contr. Orn.* 1852, p. 150; *Gray, Hand-l. B.* ii. p. 44, no. 6618 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 407 (1870); *Sharpe, Cat. Afr. B.* p. 61 (1871, pt.); *Bocage, Orn. Angola*, p. 320 (1877-81); *Böhm, J. f. O.* 1883, p. 199.
Amadina lathamii, *Gray, Gen. B.* ii. p. 370 (1849).
Quelea sanguinirostris, *Bp. Consp.* i. p. 445 (1850); *Reichenb. Singv.* p. 66, pl. xxx. figs. 233-235 (1861); *Gurney in Anderss. B. Dam.-Ld.* p. 173 (1872); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 116 (1882).
Hyphantica sanguinirostris, *Cab. Mus. Hein. Th.* i. p. 180 (1850); *Reichen. J. f. O.* 1886, p. 392.
Ploceus quelea, *Licht. Nomencl.* p. 50 (1854).
Quelea occidentalis, *Hartl. Orn. W.-Afr.* p. 129 (1857); *id. J. f. O.* 1861, p. 176.
Quelea lathamii, *Reichenb. Singv.* p. 67, Taf. xxx. figs. 236-238 (1861).
Ploceus lathamii, *Layard, B. S. Afr.* p. 186 (1867).
Quelea quelea, *Shelley, Ibis*, 1882, p. 356; *Sharpe, ed. Layard's B. S. Afr.* p. 458 (1884); *Shelley, Ibis*, 1886, p. 357; *id. P. Z. S.* 1888, p. 34.

Adult male in breeding-plumage. General colour above brown, mottled with blackish centres to the feathers, those of the mantle with whitish brown edges; lesser wing-coverts like the back, the median and greater coverts margined with whitish brown; bastard-wing and primary-coverts uniform dark brown; quills dark brown, the primaries edged with olive-yellow, the secondaries with light brown or whitish brown; upper tail-coverts like the back; tail-feathers dark brown, edged with lighter brown, and fringed with white along the inner web; crown of head rosy pink, as far as the occiput, which is uniform brown like the nape and hind neck; forehead, lores, eyelid, ear-coverts, fore part of cheeks, and throat dusky black; hinder cheeks, sides of neck, lower throat, and under surface of body rosy pink; the sides of body and flanks browner, the lower flanks with dark brown centres to the feathers; thighs light brown; under tail-coverts white, with a slight fulvous tinge; under wing-coverts and axillaries light fulvous, with a tinge of yellow near the edge of the wing; quills below dusky, ashy along the inner edge: "bill scarlet, merging into vermilion at the base and at the corner of the mouth; legs and toes flesh-colour; iris brown; ring round the eye reddish orange" (*C. J. Anderson*). Total length 4.3 inches, culmen 0.5, wing 2.55, tail 1.5, tarsus 0.7.

The rosy tint on the head and underparts is apparently the sign of a very old male. Most of the males in breeding-plumage have the head and chest light tawny or straw-colour.

Adult female. Different from the male, and entirely lacking the black face and straw-coloured or rosy head and neck; the quills and tail-feathers as in the male, the latter as well as the primaries having a distinct yellow edging; crown of head uniform brown like the hind neck; above the eye a line of creamy white; lores ashy; eyelid and feathers below the eye creamy white; ear-coverts ashy; cheeks and under surface of body creamy white, the throat, breast, and abdomen purer white; lower throat, fore neck, and chest washed with buff; sides of upper breast ashy; sides of body and flanks brown, the latter streaked with dusky brown; thighs white; under tail-coverts whitish; under wing-coverts and axillaries isabelline. Total length 4.2 inches, culmen 0.5, wing 2.45, tail 2.3, tarsus 0.65.

The adult male in winter plumage resembles the female, but has

| | | |
|---|--|------------------|
| <i>o.</i> ♂ ad.; <i>p, q.</i> ♀ ad. sk. | Damara Land (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>r.</i> ♂ hiem. sk. | Otjimbinque, Damara Land, Oct. 2, 1866 (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>s.</i> ♂ hiem. sk. | Elephant Vley, Aug. 21, 1859 (<i>C. J. A.</i>). | Sharpe Coll. |
| <i>t.</i> ♂ hiem. sk. | Swakop River, June 23, 1863 (<i>C. J. A.</i>). | Sharpe Coll. |
| <i>u.</i> ♀ ad. sk. | Swakop River, June 23, 1863 (<i>C. J. A.</i>). | Tweeddale Coll. |
| <i>v.</i> ♀ ad. sk. | Capangombe, Benguela (<i>J. Anchieta</i>). | Sharpe Coll. |
| <i>w.</i> ♂ ad. sk. | Kibiro, June 5, 1886. | Emin Pasha [P.]. |
| <i>x.</i> ♂ ad. sk. | West Africa. | Riocour Coll. |

Subsp. *α*. **Quelea intermedia.** (Plate X. fig. 4.)

Hyphantica quelea (*nec L.*), *Cab. J. f. O.* 1878, p. 232.

Hyphantica intermedia, *Reichen. J. f. O.* 1886, p. 394.

Quelea intermedia, *Salvad. Ann. Mus. Civic. Genov.* (2) vi. p. 294 (1888).

Adult. Similar to *Q. quelea*, and only differing in the smaller amount of black on the forehead. This, however, varies considerably with individuals, and the characters are not of great importance. Total length 4·5 inches, culmen 0·6, wing 2·7, tail 1·4, tarsus 0·75.

Hab. East Africa.

a, b, c. Ad.; *d.* Juv. sk. Lamo, E. Africa (*Sir J. Kirk*). Shelley Coll.

4. **Quelea æthiopica.** (Plate X. fig. 5.)

Emberiza quelea (*nec L.*), *Des Murs in Lefebvre's Voy. Abyss.* p. 119 (1845).

Ploceus sanguinirostris (*nec L.*), *Strickl. P. Z. S.* 1850, p. 218; *Sharpe, Cat. Afr. B.* p. 61 (1871, pt.); *Böhm, J. f. O.* 1883, p. 199.

Ploceus sanguinirostris, var. *æthiopicus*, *Sundev. Öfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 126.

Ploceus sanguinirostris, var. *major*, *Sundev. t. c.* p. 126.

Coccothraustes sanguinirostris, *Heugl. Syst. Uebers.* p. 39 (1856).

Quelea orientalis, *Heugl. J. f. O.* 1862, p. 27.

Quelea sanguinirostris, *Antin. Cat. descrr. Ucc.* p. 67 (1884).

Ploceus æthiopicus, *Gray, Hand-l. B.* ii. p. 44, no. 6619 (1870); *Finsch, Trans. Z. S.* vii. p. 263 (1870); *id. & Hartl. Vög. Ostaf.* p. 409, note (1870).

Hyphantica æthiopica, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 543 (1870);

Fischer & Reichen. J. f. O. 1879, p. 352; *Hartl. Abhandl. nat.*

Ver. Bremen, viii. p. 201 (1883); *Fischer, Zeitschr. ges. Orn.* i. p. 327 (1884); *Reichen. J. f. O.* 1880, p. 393, 1887, p. 70.

Quelea æthiopica, *Blanf. Geol. & Zool. Abyss.* p. 405 (1870); *Antin. & Salvad. Viagg. Bogos*, p. 119 (1873); *Pelz. Verh. z.-b. Ges. Wien*, xxxii. p. 506 (1881); *Shelley, P. Z. S.* 1881, p. 585; *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 177 (1884); *Shelley, Ibis*, 1886, p. 353.

Adult male. Similar to *Q. quelea*, but rather larger, and having the black confined to the sides of the face and throat, but not on

on to the forehead, which resembles the rest of the head: "bill dark blood-red, lighter at the tip; feet clear orange, claws horn-colour; eyelid orange-red; iris brown" (*G. A. Fischer*). Total length 4·8 inches, culmen 0·6, wing 2·9, tail 1·55, tarsus 0·75.

Adult female. Apparently not distinguished from the female of *Q. quelea*: "bill dull straw-yellow; eyelid yellow; iris brown" (*G. A. Fischer*). Total length 4·7 inches, culmen 0·6, wing 2·7, tail 0·55, tarsus 0·75.

Hab. North-eastern Africa, extending to the Zanzibar district on the east coast.

| | | |
|------------------------------|--|-------------------------------|
| a. ♀ ad. sk. | Sennaar. | Sharpe Coll. |
| b, c, d. ♂ ad.; e. ♀ ad. sk. | Ailat, Sambar (<i>Euler</i>). | Sharpe Coll. |
| f. ♂ ad. sk. | Ailat, June 29, 1868 (<i>W. Jesse</i>). | Salvin-Godman Coll. |
| g. ♀ ad. sk. | Ailat, June 29, 1868 (<i>W. J.</i>). | Sharpe Coll. |
| h, i. ♂ ♀ ad. sk. | Ailat, June 29 (<i>W. J.</i>). | Tweeddale Coll. |
| k, l. ♂ ♀ ad. sk. | Ailat, June 29, 1868. | W. T. Blanford, Esq.
[C.] |
| m, n. ♂ ♀ ad. sk. | Bejook, Bogos Land, July 18, 1868 (<i>W. Jesse</i>). | Sharpe Coll. |
| o. [♀] ad. sk. | Abyssinia (<i>von Müller</i>). | Shelley Coll. |
| p. ♂ imm. sk. | N.E. Africa (<i>Hemprich & Ehrenberg</i>). | Shelley Coll. |
| q. ♂ imm. sk. | Kordofan. | Sharpe Coll. |
| r. ♂ juv. sk. | Shoa, April (<i>O. Antinori</i>). | Shelley Coll. |
| s. Ad. sk. | Kilima-njaro. | H. C. V. Hunter, Esq.
[P.] |
| t. Ad. sk. | Lamu, E. Africa (<i>Sir J. Kirk</i>). | Shelley Coll. |
| u. Juv. sk. | Lamo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| v. Ad. sk. | Ugogo (<i>Sir J. Kirk</i>). | Shelley Coll. |

5. *Quelea russi*. (Plate X. fig. 6.)

Plocus russi, *Finsch, Gefied. Welt*, 1877, p. 317.

Adult male. Similar to *Q. quelea*, but without any black on the head or throat, the ear-coverts being light sandy buff; the crown and under surface of body in old birds being deep rosy pink. Total length 4·8 inches, culmen 0·5, wing 2·6, tail 1·45, tarsus 0·7.

Hab. Transvaal, probably extending into West Africa, but the

15. SPERMESTES.

| | |
|--|-------------------------|
| Spermestes, Swains. <i>B. W. Afr.</i> i. p. 201 (1837) | Type.
S. cucullatus. |
| Lepidopygia, Reichenb. <i>Singv.</i> p. 48 (1861) | S. nana. |

Range. Africa and Madagascar.

Key to the Species.

- a. Feet blackish ; no yellow on the rump and upper tail-coverts.
 - a'. With no white spots or bars on the lower back and rump, or on the secondaries or primaries ; back, throat, and fore neck greenish black . . *bicolor*, p. 261.
 - b'. With no white bars or spots on the rump ; secondaries externally checkered with white spots *punctata*, p. 262.
 - c'. With white bars or spots on the rump.
 - a''. Secondaries checkered with white on the outer webs as well as the primaries.
 - a'''. Back glossy greenish black like the head. *poensis*, p. 262.
 - b'''. Back chestnut, contrasting with black head *nigriceps*, p. 263.
 - b''. Secondaries brown like back ; primaries faintly checkered with white ; back brown, with a scapular patch of glossy green.
 - c'''. A patch of glossy green on the sides of the breast *cucullata*, p. 264.
 - d'''. A patch of blackish on the sides of the breast, not green *scutata*, p. 265.
- b. Feet reddish ; rump and upper tail-coverts straw-yellow ; back brown ; head grey *nana*, p. 266.

1. *Spermestes bicolor*.

Amadina bicolor, Fraser, *P. Z. S.* 1842, p. 145 ; Allen & Thomps. *Exped. Niger*, ii. p. 500 (1848) ; Fraser, *Zool. Typ.* pl. 50. figs. 2, 3 (1849) ; Gray, *Gen. B.* ii. p. 370 (1849) ; *id.* *Hand-l. B.* ii. p. 54, no. 6748 (1870).

Spermestes bicolor, Bp. *Consp.* i. p. 454 (1850) ; Hartl. *Orn. W.-Afr.* p. 148 (1857) ; Reichenb. *Singv.* p. 36, Taf. xiii. figs. 112, 113 (1861) ; Sharpe, *Ibis*, 1870, p. 481 ; *id.* *Cat. Afr. B.* p. 64 (1871) ; Shelley & Buckley, *Ibis*, 1872, p. 289 ; Sharpe, *P. Z. S.* 1874, p. 306 ; Büttik. *Notes Leyden Mus.* vii. p. 202 (1885), viii. p. 261 (1886), x. p. 91 (1888) ; Shelley, *Ibis*, 1886, p. 310.

Adult. Glossy greenish black, the lesser and median wing-coverts like the back ; greater coverts, quills, and tail-feathers black with greenish gloss externally ; the inner secondaries with one or two tiny white dots (sometimes absent) ; head all round, throat, and fore neck glossy greenish black, which continues down the sides of the breast ; remainder of the under surface pure white, except the thighs, which are black ; the sides of the body mottled with black bars where the white adjoins the black, the feathers being black, white externally and at the ends ; under wing-coverts and axill.

white, with a black patch near the outside of the wing: "bill blue; feet black; iris black" (*J. Büttikofer*). Total length 3·5 inches, culmen 0·45, wing 2, tail 1·25, tarsus 0·5.

Obs. Occasionally a white spot or two is visible on the outer webs of the secondaries.

Young. Chocolate-brown, darker on the head; quills brown, with lighter brown edges; tail-feathers blackish; throat, fore neck, and sides of body chocolate-brown, the breast and remainder of under parts whitish brown.

Hab. West Africa, from Sierra Leone to Dahomey.

| | | |
|-----------------------|---|---------------------------------------|
| a. Ad. sk. | Sierra Leone (<i>Dr. Clark</i>). | Sharpe Coll. |
| b. Ad. sk. | Sierra Leone. | Tweeddale Coll. |
| c, d. Ad. et juv. sk. | Cape Palmas. | L. Fraser [O.]
(Types of species.) |
| e. Ad. sk. | Elmina, April (<i>H. F. Blissett</i>). | Sharpe Coll. |
| f, g. Ad. et juv. sk. | Fantee. | Sharpe Coll. |
| h. Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| i. Ad. sk. | Ashantee. | Gould Coll. |
| k, l. Ad. sk. | River Volta, Aug. (<i>H. T. Ussher</i>). | Sharpe Coll. |
| m. Ad. sk. | River Volta (<i>H. T. Ussher</i>). | Shelley Coll. |
| n. Ad. sk. | Abouri, Aguapim, Feb. 23
(<i>T. E. Buckley</i>). | Shelley Coll. |
| o, p. Pull. sk. | Abeokuta. | F. Nicholson, Esq.
[P.] |

2. *Spermestes punctata*.

Spermestes punctata, *Heuglin*, *Orn. N.O.-Afr.* p. 594, note (1870).

Spermestes poensis (*nec Fraser*), *Sharpe*, *Cat. Afr. B.* p. 64 (1871).

Adult. Intermediate between *S. bicolor* and *S. poensis*, but lacking the spots on the rump of the latter. The primaries are not checkered with white spots as in *S. poensis*, but the secondaries are numerously checkered with white, which character separates the bird from *S. bicolor*. Total length 3 inches, culmen 0·4, wing 1·9, tail 1·1, tarsus 0·5.

Hab. West Africa.

| | | |
|------------|------------|--------------|
| a. Ad. sk. | Cameroona. | Sharpe Coll. |
|------------|------------|--------------|

and the white checkered spots on the outer edges of the quills. Total length 3·7 inches, culmen 0·45, wing 2·1, tail 1·15, tarsus 0·5.

Hab. West Africa, from Angola to Gaboon and Fernando Po.

| | | |
|------------------------------|--------------------------------------|---------------------------------|
| <i>a, b, c.</i> Ad. sk. | Fernando Po (<i>L. Fraser</i>). | Eyton Coll. (Types of species.) |
| <i>d.</i> ♀ ad. sk. | Fernando Po. | Purchased. |
| <i>e.</i> Ad. sk. | Gaboon. | H. T. Ansell, Esq. [P.] |
| <i>f.</i> Ad. sk. | Gaboon. | Sharpe Coll. |
| <i>g.</i> Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Shelley Coll. |
| <i>h, i.</i> Ad. et imm. sk. | Gaboon (<i>Du Chaillu</i>). | Tweeddale Coll. |
| <i>k.</i> ♀ ad. sk. | Landana, Congo (<i>Dr. Lucan</i>). | Shelley Coll. |
| <i>l.</i> Ad. sk. | Bembe, Angola. | Monteiro Coll. |

4. *Spermestes nigriceps*.

Spermestes nigriceps, *Cass. Proc. Philad. Acad.* 1852, p. 185.

Spermestes rufodorsalis, *Peters, J. f. O.* 1863, p. 401; *Cab. in Von der Decken's Reis.* iii. p. 30 (1869); *Finsch & Hartl. Vög. Ostaf.* p. 438 (1870); *Sharpe, Cat. Afr. B.* p. 64 (1871); *Cab. J. f. O.* 1878, p. 230; *Gurney, Ibis*, 1881, p. 128; *Böhm, J. f. O.* 1883, p. 184; *Sharpe, ed. Layard's B. S. Afr.* p. 456 (1884); *Fischer, Zeitschr. ges. Orn.* i. p. 323 (1884); *id. J. f. O.* 1885, p. 136; *Shelley, Ibis*, 1886, p. 309.

Amadina punctipennis, *Bianc. Spec. Zool. Mosamb.* fasc. xviii. p. 323, pl. 41. fig. 1 (1867).

Amadina nigriceps, *Gray, Hand-l. B.* ii. p. 54, no. 6750 (1870).

Adult female. General colour above chestnut, the rump and upper tail-coverts black, barred and spotted at the tips of the feathers with white; wing-coverts chestnut-brown, the inner ones like the back; the median-coverts with a pale streak near the ends; outer greater coverts, bastard-wing, and primary-coverts dusky blackish, edged with chestnut-brown; quills black, minutely spotted with white on the outer web, producing a barred appearance, the inner secondaries externally rufous brown, the innermost chestnut like the back; tail-feathers black; crown of head, hind neck, lores, sides of face, ear-coverts, cheeks, throat, sides of neck, and fore neck black; breast, abdomen, and under tail-coverts white; sides of body and flanks black, spotted and barred with white; thighs black, internally white; under wing-coverts and axillaries white, the edge of the wing mottled with black; quills below blackish, edged with ashy, whitish towards the base. Total length 3·4 inches, culmen 0·35, wing 1·85, tail 1·2, tarsus 0·5.

Adult male. Similar to the female. Total length 3·3 inches, culmen 0·4, wing 1·85, tail 1·15, tarsus 0·5.

Hab. East Africa, from the Zanzibar region down to Natal.

| | | |
|----------------------|--|---------------------|
| <i>a.</i> ♂ ad. sk. | Mombasa. | Rev. A. Buxton [C.] |
| <i>b.</i> ♂ ad. sk. | Mombasa (<i>Von der Decken</i>). | Sharpe Coll. |
| <i>c.</i> ♂ juv. sk. | Zanzibar (<i>Von der Decken</i>). | Sharpe Coll. |
| <i>d.</i> Ad. sk. | Ribe (<i>R. C. Ramsham</i>). | Shelley Coll. |
| <i>e.</i> ♀ ad. sk. | Durban, Natal, Aug. 27 (<i>T. L. Ayres</i>). | Shelley Coll. |

5. *Spermestes cucullata*.

Spermestes cucullata, Swains. *B. W. Afr.* i. p. 201 (1837), *Bp. Cinch.* i. p. 454 (1850); *Cab. Mus. Hein.* Th. i. p. 173 (1850); *Mull. Descr. Nouv. Ois. Afr.* pt. iv. pl. 16 (1854); *Hartl. Orn. W.-Afr.* p. 147 (1857); *Cass. Proc. Philad. Acad.* 1850, p. 138; *Hartl. J. f. O.* 1861, p. 250; *Reichenb. Singv.* p. 37, Taf. xiii. figs. 114, 115 (1861); *Dahrn, P. Z. S.* 1866, p. 329; *Krulen Onze Vog.* i. pl. 43 (1866); *Sharpe, Ibis*, 1869, p. 192; *id. Cat. Afr. B.* p. 64 (1871, pt.); *Shelley & Buckley, Ibis*, 1872, p. 280; *Cashe, Ibis*, 1874, p. 69; *Reichen, J. f. O.* 1875, p. 42; *Sharpe & Bowmer, Bull. Soc. Zool. France*, i. p. 49 (1875); *Oust. Nouv. Arch. Mus.* (2) ii. *Bull.* p. 111 (1879); *Pelz. Verh. z.-b. Ges. Wien*, xxxi. p. 152 (1881); *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 202 (1883); *Forbes, Ibis*, 1883, pp. 505, 508, 517; *Shelley, l. c.* p. 553; *Buttik. Notes Leyden Mus.* viii. p. 201 (1886); *Hartert, J. f. O.* 1886, p. 584; *Shelley, Ibis*, 1886, p. 300 (pt.).

Loxia prasipteron, *Less. Rev. Zool.* 1830, p. 104.

Amadina cucullata, *Sundee. (Eft. K. Vet.-Akad. Stockh.* 1849, p. 159; *Gray, Gen. B.* ii. p. 370 (1849); *id. Humbl. B.* ii. p. 54, no. 6746 (1870).

Adult male. General colour above ashy brown; lower back and rump barred with dusky brown and whitish, the feathers being tipped with whitish with a subterminal bar of blackish or dusky brown; scapulars glossy steel-green, forming a shoulder-patch; lesser wing-coverts brown, with a slight shade of glossy green; median and greater coverts brown, edged with ashy whitish at the ends; bastard-wing, primary-coverts, and quills brown, fringed with lighter brown, the primaries margined with hoary white; upper tail-coverts ashy grey; tail-feathers blackish; crown of head glossy steel-green; nape and hind neck uniform brown; lores, sides of face, feathers round eye, ear coverts, cheeks, and throat blackish, with a purplish bronzy or greenish gloss; sides of neck brown, as also the hinder ear-coverts and sides of hinder crown; fore neck and chest rather browner than the throat; breast and abdomen pure white; sides of body and flanks mottled, brown, broadly tipped with white, before which is a line or shade of glossy green like the shoulder-patch; thighs brown, edged with white; under tail-coverts white, crossed with a few zigzag bars of blackish brown; under wing-coverts and axillaries isabelline buff, the coverts near the edge of the wing more dusky; quills below dusky, isabelline along the inner edge: "bill black; feet dark brown; iris clear brown" (*Hartert*). Total length 3.6 inches, culmen 0.4, wing 2.0, tail 1.2, tarsus 0.45.

After the nesting-season the colours of the male become somewhat worn and the throat especially is browner, with less gloss. Probably only old birds have the scapular patch entirely green, as many males have only a small patch of brown with green tips to the feathers.

Adult female. Similar to the male, but rather browner; the scapulars brown with glossy green tips. Total length 3.5 inches, culmen 0.4, wing 1.8, tail 1.2, tarsus 0.45.

Hab. West Africa, from Senegambia to the Congo, and extending across to Equatorial Africa.

a Ad sk

W Africa

Purchased

| | | |
|-------------------------|---|-----------------|
| b. Ad. ; c. Juv. sk. | River Gambia. | Sharpe Coll. |
| d. Ad. sk. | Bathurst, Gambia River (<i>L. Laglaize</i>). | Tweeddale Coll. |
| e, f. Ad. ; g. Juv. sk. | Ashantee. | Gould Coll. |
| h. Ad. sk. | Elmina (<i>H. F. Blissett</i>). | Sharpe Coll. |
| i. Ad. sk. | Elmina, April (<i>H. F. Blissett</i>). | Shelley Coll. |
| k. Ad. ; l. Juv. sk. | Cape Coast Castle, Feb. and March (<i>G. E. S.</i>). | Shelley Coll. |
| m. Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| n, o, p. Ad. sk. | Accra. | Sharpe Coll. |
| q. Ad. sk. | Accra, April (<i>J. Smith</i>). | Shelley Coll. |
| r. Ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| s. Ad. sk. | River Volta (<i>H. T. Ussher</i>). | Shelley Coll. |
| t. Juv. sk. | Lokoja, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| u. Juv. sk. | Cameroons. | Sharpe Coll. |
| v. Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Tweeddale Coll. |
| w. Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Sharpe Coll. |
| x. Ad. sk. | Landana, Congo (<i>L. Petit</i>). | Shelley Coll. |
| y. ♂ ad. sk. | Rimo, Equatorial Africa, Aug. 26 (<i>Emin Pasha</i>). | Shelley Coll. |

6. *Spermestes scutata*.

Coccothraustes scutatus, *Heugl. Syst. Uebers.* p. 39 (*descr. nulla*).

Spermestes cucullata (*nec Swains.*), *Monteiro, Ibis*, 1862, p. 335; *Hartl. P. Z. S.* 1863, p. 106; *Peters, J. f. O.* 1863, p. 401; *Scl. P. Z. S.* 1864, p. 110; *Hartl. P. Z. S.* 1867, p. 826; *Sperling, Ibis*, 1868, p. 290; *Heugl. J. f. O.* 1862, p. 1; *id. Orn. N.O.-Afr.* i. p. 592 (1870), iv. App. p. cxxxv (1871); *Salvad. Atti R. Accad. Torino*, v. p. 743 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 433 (1870); *Sharpe, Cat. Afr. B.* p. 64 (1871, pt.); *Sharpe, P. Z. S.* 1873, p. 715; *E. Newton, P. Z. S.* 1877, p. 299; *Shelley, P. Z. S.* 1879, p. 677; *Cab. J. f. O.* 1878, p. 230; *Fischer & Reichen. t. c.* p. 266; *Shelley, P. Z. S.* 1881, p. 587; *Bocage, Orn. Angola*, p. 350 (1881, pt.); *Böhm, J. f. O.* 1883, p. 184; *Fischer, Zeitschr. ges. Orn.* i. p. 323 (1884); *id. J. f. O.* 1885, p. 136; *Salvad. Ann. Mus. Civ. Genov.* (2) i. p. 179 (1884); *Schalow, J. f. O.* 1887, p. 242; *W. Ayres, Ibis*, 1887, p. 60; *Shelley, Ibis*, 1886, p. 309 (pt.); *Milne-Edwards & Oust. N. Arch. Mus.* (2) x. p. 272 (1889).

Spermestes scutatus, *Heugl. J. f. O.* 1863, p. 18; *Cab. in Von der Decken's Reis.* iii. p. 30 (1869).

Amadina, sp., *Kirk, Ibis*, 1864, p. 321.

Estrela cucullata (*nec Swains.*), *Gurney, Ibis*, 1865, p. 162, 1868, p. 46.

Adult male. Similar to *S. cucullata*, but distinguished by the want of the metallic green on the sides of the body, which have only a blackish patch. Total length 3·6 inches, culmen 0·4, wing 1·9, tail 1·2, tarsus 0·5.

Young. Different from the adults. General colour above chocolate-brown; wing-coverts and quills dusky brown, edged with dull reddish brown; upper tail-coverts rather more dusky brown than the back; tail-feathers blackish; crown of head and sides of face and ear-coverts dusky brown, inclining to sooty black; cheeks and throat more ashy brown; remainder of under surface of body p

reddish brown, the abdomen isabelline; thighs dull ashy brown; under tail-coverts light reddish brown, washed with dull ashy brown at the ends; under wing-coverts and axillaries isabelline buff; quills below dusky, ashy isabelline along the inner web: "bill black; legs grey; iris brown" (*T. L. Ayres*).

Both sexes appear to be alike in plumage when young, and they apparently gain the full plumage by a direct moult. Mr. T. L. Ayres has sent young specimens in full moult procured in April and July.

Hab. South Africa from Natal to the Zambesi, extending across to South-west Africa and the Congo, where it meets with the allied *S. cucullata*. It likewise extends all over Eastern Africa to the Equatorial Lake regions, as far as Western Abyssinia. Introduced to the Comoro Islands.

| | | |
|--------------------------------|---|-----------------------------|
| a. Ad. sk. | Newcastle, Natal (<i>Capt. Savile Reid</i>). | Shelley Coll. |
| b. ♂ ad.; c, d. ♀ ad. sk. | Durban, Natal (<i>Gordge</i>). | Shelley Coll. |
| e, f. ♂ ♀ ad.; g. ♂ juv. sk. | Durban, Nov. (<i>T. L. Ayres</i>). | Shelley Coll. |
| h-i. ♂; m-t. ♀ ad. et imm. sk. | Pinetown, Natal, Feb.-April, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| u. ♂ ad.; v, w. ♀ juv. sk. | Mozambique, March, April. | Dr. Guesinzins [C.]. |
| x. ♀ juv. sk. | Shupanga, Shirè River, April (<i>Sir J. Kirk</i>). | Livingstone Exped. |
| y. Ad. sk. | Zambesi River (<i>Dr. Meller</i>). | Tweeddale Coll. |
| z, a'. Ad. sk. | Zanzibar, Dec. (<i>Von der Decken</i>). | Sharpe Coll. |
| b'. Ad. sk. | Zanzibar (<i>Sir J. Kirk</i>). | Sharpe Coll. |
| c', d', e'. Ad. sk. | Pangani River (<i>Sir J. Kirk</i>). | Shelley Coll. |
| f, g'. Ad.; h'. Juv. sk. | Mombasa (<i>Rev. J. Wakefield</i>). | Sharpe Coll. |
| i, k'. ♂ ad. et juv. sk. | N'dura, Teita, Aug. | H. C. V. Hunter, Esq. [P.]. |
| l. ♂ ad. sk. | Ambucarra, Shoa (<i>Ragazzi</i>). | Shelley Coll. |
| m'. Ad. sk. | Angola (<i>J. J. Monteiro</i>). | Sharpe Coll. |
| n'. Ad. sk. | Angola. | Monteiro Coll. |
| o'. Ad. sk. | Quilombo, Angola, July (<i>A. Heath</i>). | Shelley Coll. |

1863, p. 350; *Vins. Voy. Madag.* Ann. B, p. 2 (1865); *A. Newt. P. Z. S.* 1865, p. 836; *Schl. P. Z. S.* 1866, p. 424; *Grandid. Rev. et Mag. de Zool.* 1867, p. 389; *Schl. & Poll. Faune Madag., Ois.* p. 107 (1868); *Sharpe, Cat. Afr. B.* p. 64 (1871); *Hartl. Vög. Madag.* p. 219 (1877); *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* p. 455, pl. clxxvii. a. fig. 4, pl. clxxxiii. figs. 1, 2 (1885); *Milne-Edwards & Oust. N. Arch. Mus.* (2) x. p. 272 (1889).
Lepidopygia nana, *Reichenb. Singv.* p. 48, pl. xvii. fig. 152 (1853).
Amadina nana, *Gray, Hand-l. B.* ii. p. 54, no. 6751 (1870).

Adult male. General colour above brown, the lower rump and upper tail-coverts straw-yellow; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish brown, the inner secondaries like the back; tail-feathers blackish brown; crown of head dark ashy grey, contrasting slightly with the back; lores black; feathers round eye and sides of face ashy grey, the ear-coverts a little browner; cheeks pearly grey; throat black; remainder of body from the lower throat downwards light tawny brown, with an ashy shade over the fore neck and breast; abdomen paler and more fulvescent; under tail-coverts dusky blackish, with broad ochreous-buff margins; under wing-coverts light tawny buff; quills below dusky, ashy along the inner edge: "upper mandible black, the lower one whitish; feet flesh-colour; iris brown" (*Pollen*). Total length 3·6 inches, culmen 0·4, wing 1·8, tail 1·2, tarsus 0·5.

The adult female is similar to the male, but wants the black chin (*Grandidier*).

Young. Brownor than the adults, the head like the back; sides of face brown; cheeks and under surface of body light tawny brown, paler and more ashy on the throat.

Hab. Madagascar, Mayotte, Great Comoro.

| | | |
|---------------------------------|--|------------------------------|
| <i>a.</i> Ad. sk. | Madagascar. | Sir A. Smith [C.]. |
| <i>b, c.</i> Ad. sk. | Madagascar. | Sharpe Coll. |
| <i>d.</i> Ad. sk. | Madagascar. | Mr. Gerrard [C.]. |
| <i>e.</i> Ad. sk. | Madagascar (<i>Capt. Bewsher</i>). | Shelley Coll. |
| <i>f.</i> Ad. sk. | Madagascar. | Shelley Coll. |
| <i>g, h.</i> Ad. et
juv. sk. | Ankafana Forest, Betsileo,
March & April (<i>W. Deans
Cowan</i>). | Shelley Coll. |
| <i>i.</i> ♀ juv. sk. | Ankafana, March. | Rev. W. Deans
Cowan [C.]. |

16. AMAURESTHES.

Amauresthes, *Reichenb. Singv.* p. 86 (1861). ^{Type.} *A. fringilloides*.

Range. Confined to Africa.

1. *Amauresthes fringilloides*.

Ploceus fringilloides, *Lafr. Mag. de Zool.* 1835, pl. 48.
Amadina fringilloides, *Gray, Gen. B.* ii. p. 370 (1849); *Hartl. P. Z. S.* 1867, p. 826; *Gray, Hand-l. B.* ii. p. 54, no. 6752 (1870).
Munia fringilloides, *Bp. Consp. Av.* i. p. 453 (1850).

Spermestes fringilloides, *Hartl. Orn. W.-Afr.* p. 147 (1857); *id.* *P. Z. S.* 1867, p. 826; *Sharpe, Cat. Afr. B.* p. 64 (1871); *Oust. Nouv. Arch. Mus.* (2) ii. *Bull.* p. 112 (1879); *Büttik. Notes Leyd. Mus.* viii. p. 261 (1886), x. p. 91 (1888); *Shelley, Ibis*, 1886, p. 308. *Amauresthes fringilloides*, *Reichenb. Singv.* p. 86, pl. 44. fig. 322 (1861); *Finsch & Hartl. Vög. Ostaf.* p. 434 (1870); *Fischer & Reichen. J. f. O.* 1878, p. 285; *id.* 1879, p. 353; *Büttik. Notes Leyd. Mus.* vii. p. 201 (1885).

Adult male. General colour above chocolate-brown, the upper back varied with light rufous tips to the feathers and pale linear apical shaft-stripes; scapulars with whitish shaft-lines; rump and upper tail-coverts glossy blue-black; wing-coverts chocolate-brown, the median series with white shaft-streaks; bastard-wing, primary-coverts, and quills brown; tail-feathers black, the outer feathers fringed with white along the inner web; crown of head and hind neck black with a steel-green gloss, as well as the lores, sides of face, ear-coverts, cheeks, sides of neck, and throat; remainder of under surface from the fore neck downwards white; sides of breast with a purplish-black patch; sides of body with a large patch of pale chestnut, the outer feathers of which are streaked with black and margined with white; flanks white; thighs black, white internally; under tail-coverts white; under wing-coverts and axillaries isabelline buff; quills below dusky, deep isabelline along the inner edge: "upper mandible dark brownish black, the lower mandible horny greyish blue, with the point and edges darker; feet horny blackish; iris brownish red" (*G. A. Fischer*). Total length 4.5 inches, culmen 0.6, wing 2.35, tail 1.35, tarsus 0.55.

The specimen described was shot by Mr. T. L. Ayres near Pinetown in Natal, on the 30th of June, and is probably in full winter plumage. A specimen procured by the same gentleman on the 5th of February differs in some minor particulars. The centre of the back is pale, but does not show the rufous barring of the other male, caused by the pale tips to the feathers, but every feather has a distinct pale shaft-streak; the chestnut flank-patch is very pale, and the gloss on the head and throat is duller. The differences of plumage are doubtless only due to the fact that the bird procured in February is rather faded after the breeding-season.

17. ORTYGOSPIZA.

Type.

Ortygospiza, *Sundev. Œfv. K. Vet.-Akad. Stockh.* 1850,
p. 98 *O. polyzona*.

Range. Confined to Africa.

Key to the Species.

- a.* White on the chin and round the eye..... *polyzona*, p. 269.
b. No white on chin or round the eye, both these
parts being black..... *atricollis*, p. 270.

1. *Ortygospiza polyzona*.

Fringilla polyzona, *Temm. Pl. Col.* iii. pl. 221. fig. 3 (1823); *Heugl. Syst. Uebers.* p. 40 (1856).

Amadina polyzona, *Rüpp. Neue Wirb., Vög.* p. 101 (1835-40); *id. Syst. Uebers.* p. 77 (1845); *Hartl. Orn. W.-Afr.* p. 148 (1857, pt.); *Blanf. Geol. & Zool. Abyss.* p. 408 (1870).

Estrela polyzona, *Des Murs in Lefebvre's Voy. Abyss.* p. 117 (1845); *Gray, Gen. B.* ii. p. 368 (1849); *Licht. Nomencl. Av.* p. 48 (1854); *Layard, B. S. Afr.* p. 198 (1867); *Gurney, Ibis*, 1868, p. 162; *Layard, Ibis*, 1869, p. 370; *Gray, Hand-l. B.* ii. p. 57, no. 6798 (1870); *Shelley, Ibis*, 1882, p. 355.

Ortygospiza polyzona, *Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 98; *Bp. Consp.* i. p. 455 (1850); *Reichenb. Singv.* p. 26, Taf. vii. fig. 66 (1861); *Ayres, Ibis*, 1863, p. 329; *Sharpe, Cat. Afr. B.* p. 66 (1871); *Ayres, Ibis*, 1873, p. 282, 1878, p. 297, 1880, p. 107; *Sharpe in Oates' Matabele-Ld. App.* p. 321 (1881); *id. ed. Layard's B. S. Afr.* p. 457 (1884); *Butler, Feilden, & Reid, Zool.* 1882, p. 299; *Salvad. Ann. Mus. Genov.* (2) i. p. 179 (1884); *Shelley, Ibis*, 1886, p. 337; *Reichen. J. f. O.* 1887, p. 71.

Ortygospiza fuscocrissa, *Heugl. J. f. O.* 1863, p. 18.

Adult male. General colour above brown, slightly mottled with darker brown centres to the feathers; wing-coverts dusky brown, fringed with ashy; the greater coverts rather darker; bastard-wing, primary-coverts, and quills lighter brown, the first primary margined with white, the secondaries fringed with ashy like the coverts; upper tail-coverts like the back; tail-feathers brown, edged with lighter brown, the two outer ones with a white spot at the end of the outer web; crown of head like the back, the base of forehead black, extending backwards in a line above the eye, below this black line being a distinct white one; lores blackish; eyelid and a streak below the eye white; ear-coverts and sides of neck dark ashy brown; cheeks and feathers below the eye blackish, extending backwards over the fore part of the ear-coverts; chin white; throat black; fore neck ashy blackish, banded narrowly with white; breast light chestnut; abdomen isabelline; sides of body and flanks brown, barred with white, each white bar having a corresponding bar of black; thighs fulvous; under tail-coverts pale tawny buff, with longitudinal black centres; under wing-coverts

and axillaries pale isabelline with a slight tawny tinge; quills below dusky, ashy isabelline along the edge of the inner web: "bill crimson; tarsus and feet very light brown; iris light reddish hazel" (*Ayres*). Total length 3·4 inches, culmen 0·4, wing 2·1, tail 0·95, tarsus 0·6.

Adult female. Similar to the male, but wants the black on the face and throat, these spots being dark ashy brown. The markings are the same as in the male, but the under surface of the body is paler and the bars browner and less pronounced; "upper mandible black, lower one red; tarsi and feet pale; iris light reddish hazel" (*T. Ayres*). Total length 3·7 inches, culmen 0·4, wing 2·15, tail 1·15, tarsus 0·6.

Hab. South-east Africa, through the interior of Eastern Africa to Abyssinia and on the west to Senegal.

| | | |
|--|--|-------------------------------------|
| <i>a.</i> ♀ ad. sk. | South Africa. | Purchased. |
| <i>b, c.</i> ♂ ad. sk. | Eland's Post, S.E. Africa
(<i>T. C. Atmore</i>). | Sharpe Coll. |
| <i>d.</i> ♂ ad. sk. | Eland's Post, S.E. Africa,
July (<i>T. C. A.</i>). | Shelley Coll. |
| <i>e, f.</i> ♂; <i>g.</i> ♀
ad. sk. | Pinetown, Natal, Oct. (<i>T.</i>
<i>L. Ayres</i>). | Seebohm Coll. |
| <i>h, i.</i> ♂; <i>k, l, m.</i>
♀ ad. sk. | Pinetown, Natal, July, Oct.
(<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>n.</i> ♀ ad. sk. | Near Newcastle, Natal (<i>F.</i>
<i>Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |
| <i>o, p.</i> ♀ ad. sk. | Newcastle, June, Oct. (<i>A.</i>
<i>E. Butler</i>). | Shelley Coll. |
| <i>q.</i> ♀ ad. sk. | Potchefstroom, Transvaal,
April 15, 1878 (<i>T. Ayres</i>). | Forbes Coll. |
| <i>r.</i> ♀ ad. sk. | Senafé, Tigre, Abyssinia,
May 26, 1878. | W. T. Blanford, Esq.
[C.] |
| <i>s.</i> ♀ ad. sk. | Senegal. | M. L. Laglaize [C.] |

2. *Ortygospiza atricollis*.

Fringilla atricollis, *Vieill. N. Dict.* xii. p. 182 (1817); *id. Enc. Méth.* iii. p. 990 (1823).

Estrelida atricollis, *Gray, Gen. B.* ii. p. 369 (1849).

Amadina lunulata, *Hartl. Orn. Westafr.* p. 149 (1857, *ex Temm.*

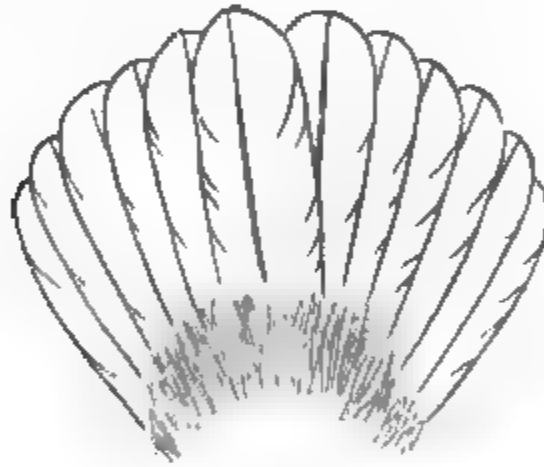
Adult female. Differs from the female of *O. polyzona* in the same way as the male, viz. by the entirely black face and chin. Total length 4.1 inches, culmen 0.35, wing 2.05, tail 0.95, tarsus 0.55.

Hab. West Africa, from the Niger to Angola, extending across to Equatorial Africa.

| | | |
|---------------------------------|---|-----------------|
| a. ♀ ad. sk. | Lokoja, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| b, c. ♂ ♀ ad. sk. | Gaboon (<i>Du Chaillu</i>). | Sharpe Coll. |
| d, e, f. ♂ ♀ ad.
et juv. sk. | Redjaf, Equatorial Africa,
Nov. & Jan. | Emin Pasha [P.] |

18. LAGONOSTICTA.

| | Type. |
|--|-------------------------|
| <i>Lagonosticta</i> , <i>Cab. Mus. Hein.</i> Th. i. p. 171 (1850) .. | <i>L. rubricata</i> . |
| <i>Hypargus</i> , <i>Reichenb. Singv.</i> p. 21 (1861) .. | <i>L. margaritata</i> . |
| <i>Mormolyca</i> , <i>Reichenb. t. c.</i> p. 67 (1861) .. | <i>L. larvata</i> . |
| <i>Rhodopyga</i> , <i>Heugl. J. f. O.</i> 1868, p. 13 .. | <i>L. rhodopsia</i> . |
| <i>Lychnidospiza</i> , <i>Heugl. Orn. N.O.-Afr.</i> iv. App.
p. cxxxvii (1871) .. | <i>L. rara</i> . |



Tail of *Lagonosticta rubricata*.

Range. Confined to Africa.

Key to the Species.

- a. With no black on head or throat.
 - a'. With crimson or scarlet on the throat.
 - a''. Red on throat confined to a triangular patch; remainder of head and throat grey; under surface of body chestnut-brown, thickly spotted and barred with white, including the under tail-coverts *monteiri*, p. 273.
 - b''. Entire throat and chest rosy or crimson, or tinged with the latter colour.
 - a'''. Breast and sides of body black, thickly spotted with ovate spots of white.
 - a⁴. Spots of breast smaller and snow-white *niveiguttata*, p. 274.
 - b⁴. Spots of breast larger and shaded with pink *margaritata*, p. 275.

- ♂''*. Lower abdomen and under tail-coverts black *perreini*, p. 285.
- b*. With black on the face and throat.
- c'*. Black of head and throat surrounded by red.
- e''*. Black of crown confined to forehead; chest red, with no white spots on the sides *vinacea*, p. 286.
- f'*. Front half of crown and lower chest black, with white spots on sides of chest *larvata*, p. 286.
- d*. Black of head surrounded by grey; forehead, crown, mantle, and breast uniform grey, with white spots on the sides of the chest *nigricollis*, p. 286.

1. *Lagonosticta monteiri*.

Pytelia monteiri, *Hartl. P. Z. S.* 1860, p. 111, pl. 161; *Reichenb. Singv.* p. 25 (1861); *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 309 (1876); *Reichen. J. f. O.* 1877, p. 29; *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 203 (1882).

Zonogastris monteiri, *Heugl. Orn. N.O.-Afr.* i. p. 624, note (1870).

Estrilda monteiri, *Gray, Hand-l. B.* ii. p. 53, no. 6735 (1870).

Hypargus monteiri, *Shelley, Ibis*, 1886, p. 318; *id. P. Z. S.* 1888, p. 30.

Pytelia stictolæma, *Reichen. J. f. O.* 1887, pp. 213, 305, 308.

Adult male (type of species). General colour above brown, the wings like the back; quills externally like the back; rump and upper tail-coverts crimson; tail-feathers black; head and hind neck, including the sides of the face, ear-coverts, cheeks, and throat, dark slaty grey, with a triangular mark of crimson down the centre of the latter; remainder of under surface of body chestnut-brown, mottled all over with bar-like spots of white; under tail-coverts barred with chestnut-brown and white. Total length 4·7 inches, culmen 0·5, wing 2·2, tail 1·8, tarsus 0·65.

Adult female. Similar to the male, but rather duller in colour, and wanting the crimson throat-patch, which is represented by a median broad streak of white slightly tinged with red on the lower throat. Total length 5 inches, culmen 0·55, wing 2·25, tail 1·75, tarsus 0·7.

Young male. Differs from the adult in being more dingily coloured and in not being spotted below. The throat is uniform slaty grey without any sign of the crimson patch, and the fore neck, breast, and sides of body are uniform tawny buff without any white spots, and the under tail-coverts are slightly barred with white.

Hab. N.E. and W. Africa; Upper White Nile, about 5° N. lat.; and from Angola to the Loango Coast.

| | | |
|---------------------------|---|--------------------------------------|
| <i>a</i> . ♂ ad. sk. | Bembe, Angola. | Monteiro Coll.
(Type of species.) |
| <i>b, c</i> . ♂ ♀ ad. sk. | Landana, Congo, June (<i>Petit</i>). | Shelley Coll. |
| <i>d</i> . ♂ ad. sk. | Leopoldville, Upper Congo,
Dec. | F. Bohndorff [C.]. |
| <i>e</i> . ♂ imm. sk. | Kudurma, Equatorial Africa,
Nov. 11 (<i>Emin Pasha</i>). | Shelley Coll. |

| | | |
|----------------------|--------------------|------------------|
| <i>f.</i> ♂ juv. sk. | Foda, Nov. | Emin Pasha [P.]. |
| <i>g.</i> ♂ ad. sk. | Tingasi, Sept. 23. | Emin Pasha [P.]. |
| <i>h.</i> ♀ ad. sk. | Tanjimoro, Oct. 5. | Emin Pasha [P.]. |

2. *Lagonosticta niveiguttata*.

Spermospiza guttata (nec V.), *Bianc. Spec. Zool. Mosamb. fasc. xviii.* p. 326 (1867).

Spermophaga niveiguttata, *Peters, J. f. O.* 1868, p. 133; *Cab. J. f. O.* 1878, p. 230; *Reichen. J. f. O.* 1887, p. 309.

Estrilda niveiguttata, *Gray, Hand-l. B. ii.* p. 52, no. 6727 (1870).

Hypargus niveiguttatus, *Finsch & Hartl. Vög. Ostaf. p.* 448 (1870); *Shelley, P. Z. S.* 1881, p. 558, pl. 52. fig. 2; *Fischer, Zeitschr. ges. Orn. i.* p. 323 (1884); *Sharpe, ed. Layard's B. S. Afr. p.* 477 (1884); *Fischer, J. f. O.* 1885, p. 135; *Matschie, J. f. O.* 1877, pp. 143, 154.

Adult. General colour above warm chocolate-brown, with a wash of crimson on the hind neck and back; rump and upper tail-coverts dark crimson; wing-coverts like the back, with a tinge of crimson on their margins; bastard-wing, primary-coverts, and quills dusky blackish, externally brown like the back; centre tail-feathers dull crimson, the remainder black, externally dull crimson; crown of head dark ashy, contrasting with the back; lores, eyebrow, sides of face, ear-coverts, cheeks, throat, and chest deep crimson; remainder of under surface black, the sides of body plentifully spotted with large rounded spots of white; a slight wash of crimson visible on the black underparts here and there, especially on the under tail-coverts; under wing-coverts white, with a dusky patch near the edge of the wing; quills below dusky, ashy along the inner edge: "bill bluish grey, the point, culmen, and cutting-edges of upper mandible as well as the tip of the lower mandible black; feet lead-colour, claws brownish; iris brown" (*G. A. Fischer*).

Adult female (?). Browner than the male, especially on the sides of the head and throat, the latter being brown, washed with crimson, the fore neck becoming entirely crimson, but much duller than in the male, as is the red colour of the upper tail-coverts and tail; breast browner, slightly tinged with red, and spotted with white,

| | | |
|------------------------------|---------------------------------|-------------------|
| <i>d, e.</i> Ad. et imm. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>f.</i> Ad. sk. | Zambesi (<i>Sir J. Kirk</i>). | Sharpe Coll. |
| <i>g.</i> Imm. sk. | Zambesi. | Sir J. Kirk [P.]. |

3. *Lagonosticta margaritata*.

Spermophaga margaritata, *Strickl. Ann. & Mag. Nat. Hist.* xiii. p. 418, pl. x. (1844); *Salvin, Cat. Strickl. Coll.* p. 249 (1882).

Spermophaga margarita, *Des Murs, Iconogr. Orn.* pl. 64 (1848) *.

Spermospiza margaritata, *Gray, Gen. B.* iii. *App.* p. 16 (1849).

Habropyga margaritata, *Bp. Consp.* i. p. 461 (1850).

Hypargus verreauxi, *Reichenb. Singv.* p. 22, Taf. vi. fig. 49 (1861).

Hypargus margaritatus, *Finsch & Hartl. Vög. Ostaf.* p. 449 (1870); *Sharpe, ed. Layard's B. S. Afr.* p. 470 (1884); *Shelley, Ibis*, 1886, p. 317.

Estrela margaritata, *Gray, Hand-l. B.* ii. p. 52, no. 6726 (1870).

Adult. The whole of the upper parts are rich ferruginous brown, except the quills, which are dusky within; the upper tail-coverts and outer margins of the rectrices dull vinous red, and their inner webs and apical portions black. The circuit of the eyes, cheeks, throat, and breast pale claret-red, rest of lower parts deep black, spotted next the breast and on the sides with large pearl-like spots the colour of peach-blossom, of which two are placed transversely and subterminally on each feather. Total length 4.75 inches, culmen 0.5, wing 2.1, tail 2, tarsus 0.75. (*Strickland.*)

Hab. Cape Colony.

4. *Lagonosticta senegala*.

Le Sénégal rouge, *Briss. Orn.* iii. p. 208, pl. x. fig. 2 (1760).

Fringilla senegala, *Linn. Syst. Nat.* i. p. 320 (1766).

Le Sénégal, *Daubent. Pl. Enl.* iv. pl. 157. fig. 1; *Montb. Hist. Nat. Ois.* iv. p. 99 (1778).

Fire-bird, *Brown, Ill. Zool.* pl. 2. fig. 2 (1776).

Senegal Finch, *Lath. Gen. Syn.* ii. pt. i. p. 312 (1783).

Fire Finch, *Lath. t. c.* p. 318 (1783, *ex Brown*).

Fringilla ignita, *Gm. Syst. Nat.* i. p. 906 (1788, *ex Brown*).

Estrela senegala, *Gray, Gen. B.* ii. p. 368 (1849); *Bp. Consp.* i. p. 460 (1850); *Hartl. Orn. W.-Afr.* p. 143 (1857); *Gray, Hand-l. B.* ii. p. 52, no. 6717 (1870).

Lagonosticta ignita, *Reichenb. Singv.* p. 18, Taf. iv. fig. 36 (1861).

Lagonosticta senegala, *Shelley, Ibis*, 1886, p. 323 (pt.).

Adult male. General colour above crimson, the back browner but washed with crimson; lower back, rump, and upper tail-coverts deep crimson; wing-coverts brown with crimson margins; bastard-wing, primary-coverts, and quills brown, narrowly edged with olive-brown; tail-feathers black, washed with deep crimson along the

* *Amadina verreauxi* on the plate.

outer webs; crown of head, sides of face, ear-coverts, throat, and breast deep crimson, fading into brown on the abdomen, which, like the flanks, thighs, and under tail-coverts, is ochreous brown; under wing-coverts brown with silky-white bases; quills below dusky, ashy along the inner edge. Total length 3.75 inches, culmen 0.4, wing 1.9, tail 1.3, tarsus 0.5.

Hab. Senegambia.

a. ♂ ad. sk.

River Gambia.

Sharpe Coll.

b. ♂ ad. sk.

River Gambia.

Shelley Coll.

5. *Lagonosticta minima*.

Le Petit Sénégal rouge, Vieill. Ois. Chant. pl. 10 (1805).

Fringilla minima, Vieill. N. Dict. d'Hist. Nat. xii. p. 183 (1817).

Estrela minima, Gray, Gen. B. ii. p. 369 (1849); Bp. Consp. i. p. 460 (1850); Hartl. Orn. Wedafr. p. 144 (1857); Gray, Hand-l. B. ii. p. 52, no. 6716 (1870).

Lagonosticta minima, Cab. Mus. Hein. Th. i. p. 172 (1850); Reichenb. Singv. p. 18, Taf. iv. figs. 34-37 (1861); Sharpe, Ibis, 1872, p. 72; Sharpe & Bouvier, Bull. Soc. Zool. France, i. p. 49 (1876); Shelley, Ibis, 1883, p. 554.

Lagonosticta senegala (nec L.), Reichenb. Singv. p. 18, Taf. iv. fig. 37 (1861).

Adult male. Similar to *L. senegala*, but pink as a rule, never reaching such a fine crimson colour, and always distinguished by some tiny white spots on the sides of the breast: "feet dark flesh-colour; iris olive-brown; eye-ring yellow" (*W. A. Forbes*). Total length 3.7 inches, culmen 0.4, wing 1.85, tail 1.3, tarsus 0.5.

Adult female. Different from the male. Dark brown above, with crimson on the rump and upper tail-coverts; wings like the back; tail as in the male; sides of face brown, with a crimson loreal spot; under surface of body ochreous brown, clearer ochreous on the abdomen, with white rounded spots on the sides of the breast: "bill rosy red, the culmen and symphysis black, shaded off on the upper mandible; feet fleshy brown; eye-ring yellow" (*W. A. Forbes*). Total length 3.5 inches, culmen 0.35, wing 1.75, tail 1.25, tarsus 0.5.

| | | |
|-------------------|---|---------------|
| k. ♀ ad. sk. | River Niger (<i>Dr. Baikie</i>). | Sharpe Coll. |
| l, m. ♂ ♀ ad. sk. | Lokoja, River Niger,
August (<i>W. A. F.</i>). | Forbes Coll. |
| n. ♂ ad. sk. | West Africa. | Riocour Coll. |

6. *Lagonosticta brunneiceps*.

- Fringilla senegala* (*nec L.*), *Licht. Verz. Doubl.* p. 27 (1823).
Estrilda minima (*nec V.*), *Rüpp. Neue Wirb., Vög.* p. 101 (1835-40);
id. Syst. Uebers. p. 77 (1845); *Heugl. J. f. O.* 1861, p. 195, 1862,
p. 29, 1864, p. 249, 1868, p. 14; *Hartl. P. Z. S.* 1863, p. 106; *Scl.*
P. Z. S. 1864, p. 110; *Antin. Cat. descr. Ucc.* p. 71 (1864);
Layard, B. S. Afr. p. 197 (1867); *Blanf. Geol. & Zool. Abyss.*
p. 409 (1870).
Fringilla (*Estrilda*) *minima* (*nec V.*), *Heugl. Syst. Uebers.* p. 49
(1856).
Lagonosticta minima (*nec V.*), *Brehm, Reis. Habesch*, pp. 217, 340
(1863); *Hartm. J. f. O.* 1863, p. 466; *Cab. in Von der Decken's*
Reis. iii. p. 52 (1869); *Heugl. Orn. N.O.-Afr.* i. p. 612 (1870);
Sharpe, P. Z. S. 1870, p. 143; *id. Cat. Afr. B.* p. 66 (1871, pt.);
Gurney, in Anderss. B. Dam.-Ld. p. 176 (1872); *Antin. & Salvad.*
Viagg. Bogos, p. 115 (1873); *Cab. J. f. O.* 1878, p. 230; *Bocage,*
Orn. Angola, p. 363 (1881); *Sharpe, in Oates' Matabele-Land,*
App. p. 321 (1881); *Shelley, P. Z. S.* 1881, p. 588; *id. Ibis,*
1882, p. 356; *Böhm, J. f. O.* 1883, pp. 184, 201; *Schalow,*
t. c. p. 363; *Sharpe, ed. Layard's B. S. Afr.* p. 476 (1884); *Salvad.*
Ann. Mus. Civ. Genov. (2) i. p. 177 (1884); *Fischer, Zeitschr. ges.*
Orn. i. p. 324 (1884); *id. J. f. O.* 1885, p. 135; *Matschie, J. f. O.*
1887, p. 143; *Salvad. Ann. Mus. Civ. Genov.* (2) vi. p. 279 (1888).
Pytelia minima (*nec V.*), *Finsch, Trans. Z. S.* vii. p. 267 (1870); *id.*
& *Hartl. Vög. Ostaf.* p. 444 (1870).
Lagonosticta senegala (*nec L.*), *Ayres, Ibis*, 1887, p. 60; *Shelley,*
P. Z. S. 1888, p. 31.

Adult male. Similar to *L. senegala*, but having the head always brown, without any crimson wash on the centre of crown and nape; sides of the breast always spotted with white: "bill vinous red, the culmen and tomium dark grey; feet reddish grey; iris reddish brown; eyelids leaden grey, with a fine eye-ring of ochre-yellow" (*R. Böhm*). Total length 3.5 inches, culmen 0.4, wing 2, tail 1.35, tarsus 0.5.

Adult female. Similar to the female of *L. minima*. Total length 3.8 inches, culmen 0.35, wing 2.1, tail 1.4, tarsus 0.5.

Hab. North-eastern Africa throughout Eastern Africa and the south-east and south-west portions of the continent.

| | | |
|-------------------|--|-------------------------------------|
| a, b. ♂ ♀ ad. sk. | South Africa. | Sir A. Smith. |
| c. ♂ ad. sk. | Pretoria (<i>Pratt</i>). | Shelley Coll. |
| d. ♀ ad. sk. | Rustenberg, E. Transvaal,
Aug. 2 (<i>W. Lucas</i>). | Shelley Coll. |
| e, f. ♀ ad. sk. | Potchefstroom, Transvaal
(<i>T. Ayres</i>). | Sharpe Coll. |
| g, h. ♂ ad. sk. | Crocodile River, July
(<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqs. [P.]. |
| i, k. ♂ ♀ ad. sk. | Tete, Zambesi (<i>Sir J. Kirk</i>). | Livingstone Expedi-
tion. |

| | | |
|---------------------------------------|---|----------------------------|
| <i>l.</i> ♂ ad. sk. | Zambesi River. | Sir J. Kirk [P.]. |
| <i>m, n.</i> ♂ ♀ ad. sk. | Mozambique. | Dr. Gueinzus [C.]. |
| <i>o.</i> ♂ ad. sk. | Ondonga, Nov. 28 (C. J. Andersson). | Sharpe Coll. |
| <i>p.</i> ♀ ad. sk. | Ovaquenyama, Damara Land, May 20 (C. J. Andersson). | Sharpe Coll. |
| <i>q.</i> ♂ ad. sk. | Katenbella, Benguela (J. Sala). | Sharpe Coll. |
| <i>r, s.</i> ♂ ♀ ad. sk. | Ujiji, Upper Congo, Aug. | F. Bohndorff [O.]. |
| <i>t, u.</i> ♂ ♀ ad. sk. | Pangani, E. Africa (Sir J. Kirk). | Shelley Coll. |
| <i>v.</i> ♀ ad. sk. | Lamu (Sir J. Kirk). | Shelley Coll. |
| <i>w.</i> ♀ ad. sk.; <i>x.</i> ♂ juv. | Shoa (Sir W. C. Harris). | India Museum. |
| <i>y.</i> ♀ ad. sk. | Dongolo, Tigre, May 18. | W. T. Blanford, Esq. [C.]. |
| <i>z, a'.</i> ♂ ad. et juv. sk. | Keren, Bogos Land (Esler). | Sharpe Coll. |
| <i>b'.</i> ♂ ad. sk. | Keren (Esler). | Shelley Coll. |
| <i>c'.</i> ♀ ad. sk. | Bejook, July 15 (W. Jesse). | Sharpe Coll. |
| <i>d'.</i> ♂ ad. sk. | Bejook, July 15 (W. Jesse). | Tweeddale Coll. |
| <i>e'.</i> ♀ ad. sk. | Maragaz, July 27 (W. Jesse). | Tweeddale Coll. |
| <i>f'.</i> ♂ ad. sk. | Maragaz, July 27 (W. Jesse). | Sharpe Coll. |
| <i>g'.</i> ♀ ad. sk. | Soudan (Capt. Verner). | Shelley Coll. |
| <i>h'.</i> ♂ ad. sk. | Kibiro, Equatorial Africa, Oct. 7. | Emin Pasha. |

7. *Lagonosticta rufopicta*.

Estrilda rufopicta, Fraser, P. Z. S. 1843, p. 27; Allen & Thoms. Exp. Niger, ii. p. 501 (1848); Fraser, Zool. Typ. pl. 51 (1849); Hartl. Orn. W.-Afr. p. 143 (1857); Gray, Hand-l. B. ii. p. 52, no. 6715 (1870); Sharpe, P. Z. S. 1874, p. 306; Forbes, Ibis, 1883, p. 517.

Estrela rufopicta, Gray, Gen. B. ii. p. 368 (1849).

Lagonosticta (*Estrela*) *lateritia*, Heugl. J. f. O. 1864, p. 251.

Estrela lateritia, Heugl. J. f. O. 1868, p. 15; Gray, Hand-l. B. ii. p. 52, no. 6720 (1870).

Pytelia rufopicta, Finsch, J. f. O. 1869, p. 336.

Lagonosticta rufopicta, Heugl. Orn. N.O.-Afr. i. p. 615 (1870); Sharpe, Ibis, 1869, p. 192; id. Cat. Afr. B. p. 66 (1871); Shelley & ...

with whitish edges; under wing-coverts ochreous; quills below dusky, ashy fulvous along the inner edge; on the fore neck and chest some tiny white spots or bars: "bill violet-red, the culmen and genys black; bare eyelids yellow; iris pale dusky brown; feet dusky reddish" (*Heuglin*). Total length 3·8 inches, culmen 0·35, wing 1·95, tail 1·4, tarsus 0·55.

Hab. West Africa from Sierra Leone to the Gold Coast and Niger districts, occurring also in Equatorial Africa and the Upper Nile.

| | | |
|------------------------|---|--------------------|
| <i>a.</i> ♂ ad. sk. | West Africa. | Purchased. |
| <i>b.</i> ♂ ad. sk. | Sierra Leone (<i>Dr. Clark</i>). | Sharpe Coll. |
| <i>c.</i> ♂ ad. sk. | Sierra Leone. | Tweeddale Coll. |
| <i>d.</i> Ad. sk. | Ashantee. | Gould Coll. |
| <i>e.</i> ♂ ad. sk. | Cape Coast Castle. | L. Fraser [C.] |
| | | (Type of species.) |
| <i>f-i.</i> ♂ ad. sk. | Cape Coast Castle, March
(<i>G. E. S.</i>). | Shelley Coll. |
| <i>k, l.</i> ♂ ad. sk. | Cape Coast Castle, March
(<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>m, n.</i> ♂ ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>o.</i> ♂ ad. sk. | River Niger. | Mrs. Heywood [P.] |
| <i>p.</i> ♀ ad. sk. | Abo, River Niger, August
(<i>W. A. F.</i>). | Forbes Coll. |
| <i>q.</i> ♂ ad. sk. | Abutchi, River Niger (<i>W.</i>
<i>A. F.</i>). | Forbes Coll. |

8. *Lagonosticta nitidula*.

Lagonosticta nitidula, *Hartl. Bull. Mus. Roy. d'Hist. Nat. Belg.* iv. p. 145, pl. iv. figs. 1, 2 (1886); *Shelley, Ibis*, 1887, p. 46.

Adult male. Above pale olivaceous dusky; eyebrows very narrowly joined in front, sides of head and throat pale vinaceous red; breast vinous red, thickly marked with minute rounded spots of white; abdomen more ashy, becoming gradually paler; rump and upper tail-coverts uniform with the back; tail uniform dusky brown; quills dusky; under wing-coverts ochreous white; bill orange-reddish, the ridge of the bill darker. Total length 3·75 inches, culmen 0·35, wing 2·05, tail 1·4, tarsus 0·65. (*Hartlaub*.)

Young. Above uniform pale dusky; underneath paler, the abdomen fulvescent; throat conspicuously varied with reddish. (*Hartlaub*.)

Hab. Lake Tanganyika.

9. *Lagonosticta rhodopsis*.

Estrela rhodopsis, *Heugl. J. f. O.* 1863, p. 166; *Gray, Hand-l. B.* ii. p. 50, no. 6701 (1870).

Rhodopyga rhodopsis, *Heugl. J. f. O.* 1868, p. 13, pl. i. fig. 3; *id. Orn. N.O.-Afr.* iv. App. p. cxxxvii (1871).

Habropyga rhodopsis, *Heugl. Orn. N.O.-Afr.* i. p. 610, pl. xix. fig. c (1870).

Lagonosticta rhodopsis, *Shelley, Ibis*, 1886, p. 325.

Adult male. Entirely dull dusky ashy; paler underneath; middle

of the belly and under tail-coverts whiter; eyebrows, lores, cheeks, and chin washed with rosy; tail rather graduated, above black, below smoky brown; rump and tail-feathers crimson, brown towards the bases of the outer margin; bill blackish, washed with rosy, with a white spot at the angle of the mouth; feet dusky, the soles ashy; iris brown. Total length 3·8 inches, bill from forehead scarcely 0·4, wing 1·85, tail 1·6, tarsus 0·6. (*Heuglin.*)

Hab. Gazelle River, N.E. Africa.

10. *Lagonostieta polionota*. (Plate XI. fig. 2.)

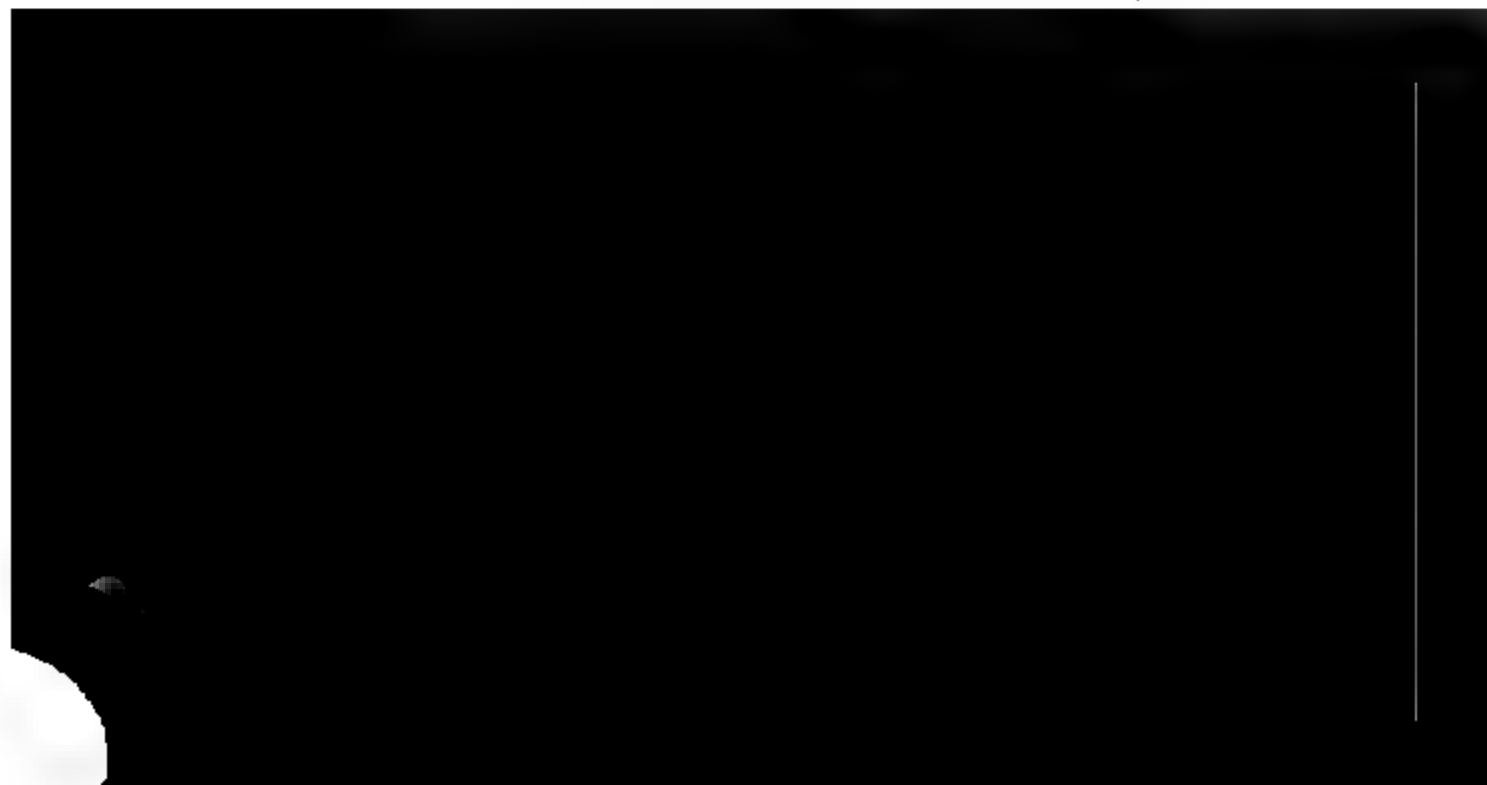
Lagonostieta polionota, *Shelley, Ibis*, 1873, p. 141; *id Ibis*, 1880, p. 325; *Hartert, J. f. O.* 1886, p. 584.

Adult male (type of species). General colour above dark slaty brown, with a rosy tinge, especially on the head and hind neck, which are otherwise slaty brown like the back; rump and upper tail-coverts deep crimson; wing-coverts and quills slaty brown like the back, also with a slight rosy wash; tail-feathers black, deep crimson towards the base of the outer web; base of forehead, lores and eyebrow, sides of face, ear-coverts, cheeks, throat and breast, and sides of body deep crimson, with a few tiny white spots on the sides of the breast; abdomen and thighs slaty black; under tail-coverts black; under wing-coverts ochreous buff; quills below dusky, ashy along the inner edge: "bill slaty grey; feet and claws slaty brown, iris dark brown" (*G. E. Shelley*); eye-ring yellowish white (*Hartert*). Total length 3·8 inches, culmen 0·55, wing 1·95, tail 1·55, tarsus 0·55.

Hab. West Africa, from the Gold Coast to the Niger.

| | | |
|-----------------|--|--------------------------------------|
| a. ♂ ad. sk. | West Africa. | Purchased. |
| b. ♂ ad. sk. | Fantes. | Sharpe Coll. |
| c, d. ♂ ad. sk. | Cape Coast Castle, March (<i>G. E. S.</i>). | Shelley Coll. |
| e. ♂ ad. sk. | Cape Coast Castle, March (<i>T. E. Buckley</i>). | (Types of species.)
Shelley Coll. |

11. *Lagonostieta congica*. (Plate XI. fig. 3.)



12. *Lagonosticta rubricata*.

Le Sénégal rouge, *Vieill. Ois. (Hant. pl. ix. (1805); id. N. Dict. d'Hist. Nat. xii. p. 183 (1817).*

Fringilla rubricata, *Licht. Verz. Doubl. p. 27 (1823).*

Estrela rubricata, *Gray, Gen. B. ii. p. 368 (1849); Bp. Consp. i. p. 459 (1850); Licht. Nomencl. Av. p. 48 (1854); Gurney, Ibis, 1864, p. 352; Layard, B. S. Afr. p. 197 (1867); id. Ibis, 1869, p. 370; Finsch & Hartl. Vög. Ostaf. p. 446 (1870); Gray, Hand-l. B. ii. p. 52, no. 6714 (1870).*

Lagonosticta rubricata, *Cab. Mus. Heim. Th. i. p. 171 (1850); Sharpe, Cat. Afr. B. p. 66 (1871); Shelley, Ibis, 1875, p. 80; Ayres, Ibis, 1876, p. 431; Sharpe, ed. Layard's B. S. Afr. p. 475 (1884); Shelley, Ibis, 1886, p. 324.*

Adult male. General colour above brown, the rump and upper tail-coverts dark crimson; wing-coverts brown like the back: quills dusky, the primaries externally slaty grey, the secondaries browner like the back; tail-feathers black, externally dark crimson; crown of head and hind neck slaty grey, contrasting with the back; lores, base of forehead, eyebrow, and sides of face deep crimson; hinder ear-coverts slaty grey like the sides of the neck; cheeks, throat, breast, and sides of body deep crimson, with some tiny white spots on the sides of the breast; abdomen slaty black; thighs and under tail-coverts deep black; under wing-coverts dull ochraceous; quills below dusky, ashy fulvous along their inner edge: "upper mandible ashy black; lower mandible ashy, but pink at the base; tarsi and feet dusky; iris dusky" (*T. Ayres*). Total length 4.1 inches, culmen 0.45, wing 2.05, tail 1.65, tarsus 0.55.

Adult female. Duller in colour than the male, and never so crimson; further distinguished by the ochreous-brown abdomen; thighs dark ashy; under tail-coverts blackish with ashy margins. Total length 4 inches, culmen 0.45, wing 1.7, tail 1.6, tarsus 0.6.

Young male. At first resembles the old female, but has generally some trace of black on the abdomen.

Hab. South-eastern Africa.

| | | |
|--|---|--------------------------|
| <i>a, b.</i> ♂ ♀ ad. sk. | S.E. Africa. | Sir A. Smith [C.]. |
| <i>c, d.</i> ♂ ♀ ad. sk. | Eland's Post (<i>T. C. Atmore</i>). | Sharpe Coll. |
| <i>e.</i> ♂ ad. sk. | Eland's Post (<i>T. C. A.</i>). | Shelley Coll. |
| <i>f.</i> ♂ ad. sk. | Grahamstown (<i>T. C. A.</i>). | Sharpe Coll. |
| <i>g, h.</i> ♂ ♀ ad. sk. | Durban, Natal (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>i, k.</i> ♂ ad. et juv. sk. | Pinetown, Natal (<i>T. L. A.</i>). | Sharpe Coll. |
| <i>l-p.</i> ♂; <i>q, r, s.</i> ♀ ad. et juv. sk. | Pinetown, Natal, May to August (<i>T. L. A.</i>). | Shelley Coll. |
| <i>t, u.</i> ♂ ♀ ad. sk. | Pretoria (<i>Pratt</i>). | Shelley Coll. |
| <i>v.</i> ♀ ad. sk. | Macamac, E. Transvaal, Dec. 4, 1874. | F. A. Barratt, Esq. [P.] |
| <i>w.</i> ♀ ad. sk. | Macamac, E. Transvaal, Dec. 9 (<i>T. A.</i>) | J. H. Gurney, Esq. [P.] |

18. *Lagonosticta rara*.

- Estrela melanogaster* (nec Swains.), *Heugl. J. f. O.* 1863, p. 273.
Habropyga rara, *Antin. Cat. descr. Ucc.* p. 72 (1864, March).
Habropyga hypomelas, *Heugl. J. f. O.* 1864, p. 252 (June).
Rhodopyga hypomelas, *Heugl. J. f. O.* 1868, p. 13, pl. i. fig. 4.
Rhodopyga rara, *Salvad. Atti R. Accad. Torino*, v. p. 742 (1870).
Estrela rara, *Gray, Hand-l. B.* ii. p. 50, no. 6690 (1870); *Forbes, Ibis*, 1883, p. 513.
Habropyga hypomelana, *Heugl. Orn. N.O.-Afr.* i. p. 611 (1870).
Lychnidospiza melanogastra, *Heugl. op. cit.* ii. App. p. cxxxvii (1871).
Habropyga senochroa, *Hartl. J. f. O.* 1882, p. 322; *id. Ornith. Centralbl.* 1882, p. 91; *id. J. f. O.* 1883, p. 322; *id. Abhandl. nat. Verein. Bremen*, viii. p. 203 (1882); *Reichen. & Schalow, J. f. O.* 1884, p. 404.
Lagonosticta melanogastra (nec Swains.), *Shelley, Ibis*, 1883, p. 553.
Lagonosticta rara, *Shelley, Ibis*, 1886, p. 325; *Salvad. Ann. Mus. Genov.* (2) vi. p. 281 (1888); *Shelley, P. Z. S.* 1888, p. 31.
Lagonosticta senochroa, *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 226 (1882); *id. Zool. Jahrb.* ii. p. 323, Taf. xiii. fig. 6 (1887).

Adult male. General colour above rich dark crimson everywhere, the bases of the feathers being dull ashy blackish; rump and upper tail-coverts uniform with the back; lesser and median coverts dusky blackish with crimson edges; greater coverts, bastard-wing, primary-coverts, and quills dusky blackish; tail-feathers black, externally dark crimson near the base; crown of head, sides of face, and under surface of body dark rich crimson; centre of breast, abdomen, thighs, and under tail-coverts black; sides of body crimson like the throat; under wing-coverts buffy white; quills below dusky, ashy along the inner edge: "bill rosy, upper mandible blackish; feet dark grey; iris olive-brown; eyelid very pale pink" (*Emin*). Total length 4.5 inches, culmen 0.5, wing 2, tail 1.6, tarsus 0.6.

Adult female. Duller crimson than the male, the rump and upper tail-coverts a little brighter than the back; crown of head and hind neck, sides of face and sides of neck dark ashy grey; lores bright crimson; throat ashy, becoming tinged with pink on the lower parts; fore neck, breast, and sides of body pale pink; centre of breast and abdomen ochraceous, lower abdomen mixed with black.

Estrela rhodopareia, Gray, *Hand-l. B.* ii. p. 52, no. 6719 (1870);
Finsch & Hartl. Vög. Ostaf. p. 446 (1870).

Lagonosticta rubricata (*nec Sundev.*), *Heugl. Orn. N.O.-Afr.* p. 615 (1870).

? *Lagonosticta polionota* (*nec Shelley*), *Cab. J. f. O.* 1878, p. 230;
Shelley, P. Z. S. 1881, p. 588.

Adult male. General colour above brown, washed with rosy; lower rump and upper tail-coverts bright crimson; wings brown like the back; tail-feathers black, the centre feathers dull crimson towards the base, the remainder black, externally dull crimson; head and neck crimson, the crown a little browner; lores, eyebrow, sides of face, and under surface of body rich crimson; centre of abdomen and thighs blackish; under tail-coverts black; on the sides of the breast some tiny spots of white; under wing-coverts ashy with brown bases; quills dusky, ashy fulvous along the inner web: "bill lead-colour, the tip black; feet dusky lead-colour; iris dusky" (*Heuglin*). Total length 4·2 inches, culmen 0·4, wing 1·85, tail 1·55, tarsus 0·5.

Hab. From the Zanzibar region in East Africa to Gala Land and Bogos Land in North-eastern Africa.

a. Ad. sk. Dar-es-Salaam, E. Africa (*Sir J. Kirk*). Shelley Coll.

15. *Lagonosticta jamesoni*. (Plate XI. fig. 1.)

Lagonosticta jamesoni, *Shelley, Ibis*, 1882, p. 355; *Reichen. Ornith. Centralbl.* 1882, p. 91; *Sharpe, ed. Layard's B. S. Afr.* p. 475 (1884); *Reichen. & Schalow, J. f. O.* 1884, p. 404; *Shelley, Ibis*, 1886, p. 324.

Adult male. Similar to *L. rhodoparia*, but much paler and more pink, especially on the under surface, and with hardly a trace of white dots on the sides of the breast: "bill bright bluish ash, with the culmen and tip somewhat dusky; tarsi and feet pinkish; iris dusky brown" (*T. Ayres*). Total length 4 inches, culmen 0·4, wing 1·85, tail 1·3, tarsus 0·55.

Adult female. Similar to the male, but duller in colour, especially below, the under surface being salmon-pink; under tail-coverts blackish with pinkish-buff margins. Total length 3·9 inches, culmen 0·45, wing 1·9, tail 1·6, tarsus 0·55.

Hab. Mashoona Land, S.E. Africa.

a. ♂ ad. sk. Tatin River, Dec. 9 (*J. S. Jameson*). Shelley Coll. (Type of species.)

b. ♀ ad. sk. Umvuli River, Aug. 17 (*J. S. Jameson*). Shelley Coll.

16. *Lagonosticta landanæ*. (Plate XII. fig. 2.)

? *Estrela rubricata*, *Reichen. J. f. O.* 1877, p. 229.

? *Lagonosticta rubricata*, *Bocage, Orn. Angola*, p. 302 (1881).

Adult male. Similar to *L. rhodoparia*, but distinguished by its yellow eyelid and yellow bill, the latter being blackish at the ends

of both mandibles and along the tomium of the upper one. Total length 4.1 inches, culmen 0.43, wing 1.9, tail 1.4, tarsus 0.5.

Adult female. Everywhere duller and paler brown than the male; eyebrow, sides of face, and under surface of body salmon-red, ochreous on the abdomen and blackish on the under tail-coverts; sides of body with distinct white spots.

Hab. Lower Congo Region.

a, b. ♂ ♀ ad. sk.

Landana, Feb. (*L. Petit*).

Shelley Coll.

17. *Lagonosticta cærulescens*.

Le Bengali gris-bleu, Vieill. Ois. Chant. p. 27, pl. 8 (1805).

Fringilla cærulescens, Vieill. N. Dict. d'Hist. Nat. xii. p. 176 (1817); *id. Enc. Méth.* p. 986 (1823).

Estrela cærulescens, Swains. B. W. Afr. i. p. 195 (1837); *Gray, Gen. B.* ii. p. 369 (1849); *Bp. Consp. Av.* i. p. 460 (1850); *Hartl. Orn. W.-Afr.* p. 142 (1857); *Gray, Hand-l. B.* ii. p. 52, no. 6718 (1870); *Shelley, Ibis*, 1886, p. 328.

Lagonosticta cærulescens, Cab. Mus. Hein. i. p. 172, note (1850).

Habropyga cærulescens, Reichenb. Singv. p. 12, pl. 2, figs. 14, 15 (1861); *Sharpe, Cat. Afr. B.* p. 65 (1871).

Habropyga timbriata, Reichenb. Singv. pp. 12, 49, pl. 18, figs. 165, 166 (1861); *Gray, Hand-l. B.* ii. p. 52, no. 6723 (1870).

Adult. General colour above and below pearly grey; the lower back, rump, and upper tail-coverts bright crimson; centre tail-feathers dull crimson, the remainder black, externally dull crimson; quills dusky, externally hoary grey; lores blackish; face and throat a little paler grey than the rest of the upper parts; the fore neck and breast dusky grey, gradually darkening towards the abdomen which is blackish; under tail-coverts crimson; under wing-coverts hoary whitish; quills dusky below, ashy along the inner web. Total length 3.35 inches, culmen 0.35, wing 1.9, tail 1.4, tarsus 0.55.

Hab. West Africa.

Habropyga incana, *Reichenb. Singv.* p. 12 (1861).

Fringilla cœrulescens (*nec Vieill.*), *Bianc. Spec. Zool. Mosamb.* fasc. xviii. p. 326 (1867).

Pytelia incana, *Layard, B. S. Afr.* p. 197 (1867); *Finsch & Hartl. Vög. Ostaf.* p. 446 (1870).

Adult male. General colour above delicate blue-grey, the lower back and rump and upper tail-coverts crimson; wing-coverts like the back; quills dusky, externally like the back, the primaries edged with hoary grey; tail-feathers dusky blackish; crown of head like the back, with a narrow black line along the extreme base of the forehead; through the eye a narrow black streak; base of chin black; lores, sides of face, and throat light pearly grey, deepening on the lower breast and abdomen, as well as the sides of body and flanks; thighs ashy grey; under tail-coverts dusky blackish; under wing-coverts white, those near the edge of the wing ashy; axillaries like the breast; quills below dusky, ashy along the inner edge: "bill grey; feet black; iris red" (*T. L. Ayres*). Total length 4.1 inches, culmen 0.35, wing 1.95, tail 1.9, tarsus 0.6.

Adult female. Similar to the male. Total length 4.25 inches, culmen 0.35, wing 1.9, tail 1.9, tarsus 0.6.

Hab. South-eastern Africa from Mozambique to Natal.

| | | |
|-------------------------|--|---------------|
| <i>a, b, c.</i> Ad. sk. | Durban, Natal (<i>Gordge</i>). | Shelley Coll. |
| <i>d, e.</i> ♂ ad. sk. | Durban, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>f.</i> ♀ ad. sk. | Pinetown, July (<i>T. L. Ayres</i>). | Shelley Coll. |

Subsp. α. *Lagonosticta perreini*.

Fringilla perreini, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 179 (1817).

Estrela melanogastra, *Swains. B. W. Afr.* i. p. 194 (1837); *Gray, Gen. B.* ii. p. 368 (1849).

Estrela perreini, *Gray, Gen. B.* ii. p. 369 (1849); *Bp. Conspect. Av.* i. p. 460 (1850); *Hartl. Orn. W.-Afr.* p. 143 (1857); *Gray, Hand-l. B.* ii. p. 50, no. 6696 (1870); *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 300 (1876); *Bocage, Orn. Angola*, p. 359 (1881); *Shelley, Ibis*, 1886, p. 328.

Habropyga perreini, *Cab. Mus. Hein.* i. p. 169, note (1850); *Reichenb. Singv.* p. 12 (1861); *Reichen. J. f. O.* 1877, p. 29.

Pytelia perreini, *Finsch & Hartl. Vög. Ostaf.* p. 447, note (1870).

Adult male. Similar to *L. incana*, but with the lower abdomen blackish as well as the under tail-coverts. Total length 4 inches, culmen 0.4, wing 1.95, tail 1.8, tarsus 0.6.

Adult female. Similar to the male. Total length 4.1 inches, culmen 0.35, wing 1.9, tail 1.65, tarsus 0.55.

Hab. Congo region.

| | | |
|--------------------------|--------------------------------------|---------------|
| <i>a.</i> ♂ ad. sk. | Landana, Congo (<i>Dr. Lucan</i>). | Shelley Coll. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Landana (<i>L. Petit</i>). | Shelley Coll. |

19. *Lagonosticta vinacea*.

Estrela vinacea, *Hartl. Orn. W.-Afr.* p. 143 (1857); *Gray, Hand-l. B. ii.* p. 52, no. 6722 (1870).

Lagonosticta vinacea, *Reichenb. Singv.* p. 18 (1861); *Shelley, Ibis*, 1886, p. 325.

Adult. Beautiful vinous red, more brightly tinged below; tail above more intense red, black underneath; head ashy; sides of head, throat, and margin of forehead black; flanks with some tiny white spots; under tail-coverts black; under wing-coverts white; bill and feet lead-colour. Total length 4 inches, culmen 3.35, wing 1.9, tail 1.75, tarsus 0.55. (*Hartlaub.*)

Hab. Senegambia.

20. *Lagonosticta larvata*.

Amadina larvata, *Rüpp. Neue Wirb., Vög.* p. 97, pl. 36. fig. 1 (1835); *id. Syst. Uebers.* p. 77 (1845); *Gray, Gen. B. ii.* p. 370 (1849).

Habropyga larvata, *Bp. Consp. Av. i.* p. 461 (1850).

Fringilla (Amadina) larvata, *Heugl. Syst. Uebers.* p. 40 (1856).

Mormolyca larvata, *Reichenb. Singv.* p. 67 (1861).

Lagonosticta larvata, *Heugl. J. f. O.* 1868, p. 16; *id. Orn. N.O.-Afr.* p. 617, App. p. cxxxviii (1871); *Shelley, Ibis*, 1886, p. 325.

Estrela larvata, *Gray, Hand-l. B. ii.* p. 52, no. 6728 (1870).

† *Pytelia larvata*, *Fischer & Reichen. J. f. O.* 1879, p. 212.

Adult. General colour beautiful vinaceous red on an ashy ground; ear-coverts and throat black, well defined, the crown washed with slaty grey; interscapular region dark dusky ashy, the wings more dusky; quills pale smoky brown, margined with ashy; tail-feathers black below and on the inner web, crimson on the outer web like the upper tail-coverts; under tail-coverts, vent, and abdomen black, the former washed with purple, the latter more ashy towards the breast; under wing-coverts whitish, varied with vinous and grey; on the flanks some rather large dots of white, surrounded with blackish; bill purplish lead-colour; feet and bare region of the eye lead-colour; iris dusky. Total length 4½", bill from front 4½" 4¾", wing 1" 10", tail 1" 10".

white on the outer web of the primaries: tail-feathers black, externally dull crimson; crown of head slaty grey like the back; a line across the base of the forehead, feathers round the eye, ear-coverts, sides of face, cheeks and throat, black; remainder of under surface of body pearly grey, a little darker on the sides of the body, which are ornamented with tiny white dots: thighs slaty grey: sides of vent and under tail-coverts black: under wing-coverts ashy grey, with whitish bases to the feathers: quills dusky below, ashy along the inner web: "bill pale greyish blue, darker on the culmen and apex: feet dark grey; eyelid pale greyish blue; iris brown" (*W. A. Forbes*). Total length 4·4 inches, culmen 0·45, wing 1·95, tail 1·7, tarsus 0·5.

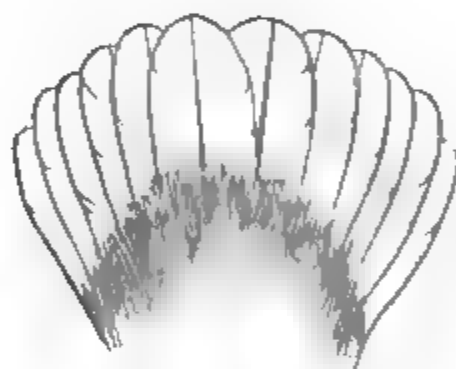
Hab. N.E. Africa in the countries of the Upper White Nile, across to the Niger River in Western Africa.

♂ ad. sk

Lokoja, River Niger, Aug.
(*W. A. F.*).

Forbes Coll.

19. STICTOSPIZA.



Tail of *Stictospiza formosa*.

Range. Confined to the Indian Peninsula.

1. *Stictospiza formosa*.

Lovely Finch, *Lath. Gen. Syn. Suppl.* i. p. 618 (1787).

Fringilla formosa, *Lath. Ind. Orn.* i. 441 (1700).

Estrela formosa, *Gray, Gen. B.* ii. p. 369 (1849); *Blyth, Cat. B. Mus. As. Soc.* p. 110 (1849); *Jerd. B. Ind.* ii. p. 361 (1803); *Gray, Hand-l.* ii. p. 53, no. 6734 (1870); *Hume, Nests & Eggs Ind. B.* p. 458; *Butler, Str. F.* iii. p. 400 (1875); *Fairbank, Str. F.* iv. p. 261 (1876); *Hume, Str. F.* viii. p. 107 (1879); *Butler, Cat. B. Sind &c.* p. 46 (1879); *id. Cat. B. S. Bomb. Pres.* p. 61 (1880); *Reid, Str. F.* x. p. 56; *Davidson, l. c.* p. 313 (1882); *Swinh. & Barnes, Ibis*, 1885, p. 120.

Pytelia lateralis, *Bp. Consp. Av.* i. p. 462 (1850).

Pytelia formosa, *Ball, Str. F.* ii. p. 421 (1874), vii. p. 222 (1878).

Adult male. General colour above light olive-green, the wing-coverts like the back; bastard-wing, primary-coverts, and quills dark brown, narrowly edged with olive, the inner secondaries entirely olive-green like the back; upper tail-coverts brighter o'

yellow; tail-feathers black; sides of face and sides of neck light olive-green; cheeks, throat, and under surface of body bright yellow, paler on the throat and deepest on the abdomen and under tail-coverts; sides of body barred with black and white, the black bars very broad, the white bars narrow; under wing-coverts isabelline; edge of wing bright yellow; quills dusky below, ashy isabelline along the inner web: "bill waxy red; feet plumbeous brown; iris pale brown" (*Jerdon*). Total length 4.4 inches, culmen 0.4, wing 1.85, tail 1.4, tarsus 0.55.

Adult female. Duller green than the male, the upper tail-coverts washed with brighter olive-yellow; head and back ashy olive-green, as also the sides of the face; throat and fore neck ashy white, the sides dull ashy; breast, abdomen, thighs, and under tail-coverts pale yellow, the sides of the body barred with black and white as in the male, but not so distinctly. Total length 4 inches, culmen 0.4, wing 1.9, tail 1.45, tarsus 0.55.

Young. Distinguished by its black bill and olive-brown colour; throat and chest ochroous buff; remainder of under surface pale sulphur-yellow, with light brown flanks.

Hab. Central India.

| | | |
|-----------------------|---|---------------------|
| a. Ad. st. | India. | Zoological Society. |
| b, c. ♂; d. ♀ ad. sk. | Mount Abu, March, May, July (<i>G. King</i>). | Hume Coll. |
| e, f, g. Ad. sk. | Jhansi. | Pinwill Coll. |
| h-r. ♂ ♀ ad. sk. | Jhansi, Aug., Sept. | Hume Coll. |
| s. Ad. st. | Behar. | Hodgson Coll. |
| t. ♂ ad. sk. | Saugor, March 19. | Hume Coll. |
| u. ♂ juv. sk. | Palamow, April 5 (<i>V. Ball</i>). | Hume Coll. |
| v-z. Ad. et juv. sk. | Raipur, Jan. | Hume Coll. |
| a', b', c'. Ad. sk. | Mundla district, April (<i>R. Thompson</i>). | Hume Coll. |
| d'. Ad. sk. | Valley of the Tapti, Khandeish, May. | Hume Coll. |
| e', f', g'. ♂ ad. sk. | Pranhita River, April. | Hume Coll. |

20. AMADINA.

Type.

1. *Amadina fasciata*.

- The Fasciated Grosbeak.** *Brown, Ill. Zool.* p. 64, pl. xxvii. fig. 1 (1776); *Lath. Gen. Syn.* ii. pl. i. p. 136 (1783).
Loxia fasciata, *Gm. Syst. Nat.* i. p. 839 (1788); *Des Murs in Lefebvre's Voy. Abyss.* p. 118 (1845).
La Lorie fasciée, *Vieill. Ois. Chant.* p. 90, pl. 38 (1865).
Coccothraustes fasciata, *Vieill. N. Diet. d'Hist. Nat.* xiii. p. 328 (1817).
Fringilla detruncata, *Licht. Verz. Döwbl.* pp. 25, 26 (1828).
Amadina fasciata, *Savins. Zool. Journ.* iii. p. 349 (1827); *id. R. H. Afr.* i. p. 197, pl. 15 (1837); *Des Murs in Lefebvre's Voy. Abyss.* p. 173 (1845); *Gray, Gen. B.* ii. p. 339 (1849); *Ips. Congo. Afr.* i. p. 454 (1850); *Hartl. Orn. W.-Afr.* p. 146 (1857); *Birds J. f. O.* 1859, p. 43; *Reichenb. Singe.* p. 34, Taf. 12. figs. 102-104 (1861); *Hartl. J. f. O.* 1861, 259; *Heugl. J. f. O.* 1862, p. 28; *Antin. Cat. descr. Vcc.* p. 70 (1864); *Gray, Handb. B.* ii. p. 32, no. 6741 (1870); *Sharpe, Cat. B. Afr.* p. 65 (1871); *Antin. & Salvad. Viagg. Bogos.* p. 116 (1873); *Fischer, Zeitschr. ges. Orn.* i. p. 323 (1884); *Shelley, Ibis*, 1880, p. 313; *id. P. Z. & 1888*, p. 30; *Salvad. Ann. Mus. Genov.* (2) i. p. 179 (1884), vi. p. 283 (1888).
Amadina detruncata, *Rüpp. Neue Wirb., Vog.* p. 101 (1835); *id. Syst. Uebers.* p. 77 (1845).
Sporothlastes fasciatus, *Cab. Arch. f. Nat.* 1847, p. 331; *id. Mus. Hein.* i. p. 173 (1850); *Heugl. Orn. N.O.-Afr.* p. 600, App. p. cxxxv (1871); *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 203 (1883); *Reichen. J. f. O.* 1887, p. 71.
Fringilla (Amadina) detruncata, *Heugl. Syst. Uebers.* p. 40 (1860).
Munia fasciata, *Keulem. Onze Vog.* ii. pl. 64 (1873).

Adult male. General colour above ruddy brown, numerously crossed with black bars, the rump and upper tail-coverts paler, and the latter white at the ends; wing-coverts brown, the lesser ones barred like the back, the median and greater series pale fawn-colour at the ends with a subterminal bar of black; bastard wing, primary-coverts, and quills dusky brown, edged with ashy brown, the inner secondaries spotted with fawn at the ends like the greater coverts; tail-feathers blackish, the centre ones washed with grey towards the base, the remainder tipped with white, and the outer one white along the outer web; head like the back, and barred in the same manner; feathers round the eye, cheeks, and throat white, with a broad band of crimson reaching from the ear-coverts across the hinder cheeks and throat; lower throat and remainder of under surface pale fawn-colour, with narrow cross bars of triangular shape; in the centre of the breast a large patch of pale chestnut; lower abdomen and vent white; under tail-coverts buffy white with blackish bases; under wing-coverts and axillaries uniform pale fawn-colour: "bill pale lead-colour; feet reddish; iris umber-brown" (*Heuglin*). Total length 5·2 inches, culmen 0·4, wing 2·6, tail 1·4, tarsus 0·6.

The *adult female*, according to *Heuglin*, wants the crimson on the throat, and also the chestnut spot on the abdomen.

Hab. Senegambia across to North-eastern Africa, and south to Masai-Land.

| | | |
|-----------------------------|---|-----------------------|
| a. Ad. st. | West Africa. | A. Wiener, Esq. [P.]. |
| b. Ad. st. | West Africa. | Mr. J. Baker. |
| c. Ad. st. | West Africa. | J. Gould, Esq. |
| d. Imm. sk. | West Africa. | Sharpe Coll. |
| e. Ad. sk. | West Africa. | Riocour Coll. |
| f. Ad. sk. | River Gambia. | Sharpe Coll. |
| g. Ad. sk. | Abyssinia. | Purchased. |
| h. Imm. sk. | Ailat, Bogos-Land. | Mr. Esler [C.]. |
| i. Ad. sk. | Ailat, Bogos-Land (<i>Esler</i>). | Sharpe Coll. |
| k, l, m. Ad. et
juv. sk. | Ailat, Bogos-Land (<i>Esler</i>). | Shelley Coll. |
| n. ♂ ad. sk. | Daimbi, Shoa, May 27
(<i>O. Antinori</i>). | Shelley Coll. |
| o. ♂ ad. sk. | Redjaf, Equatorial Africa,
Dec. 17. | Emin Pasha [P.]. |

2. *Amadina marginalis*.

Adult. Similar to *A. fasciata*, but having a throat-band of deeper crimson, a generally darker rufous coloration, and all the feathers of the breast and flanks *edged*, not subterminally *barred*, with black. Total length 4·2 inches, culmen 0·4, wing 2·5, tail 1·5, tarsus 0·6.

Hab. West Africa.

| | | |
|------------|--------------|-----------------------|
| a. Ad. sk. | West Africa. | I. Pulham, Esq. [P.]. |
| b. Ad. sk. | West Africa. | Sir A. Smith. |

3. *Amadina erythrocephala*.

The Sparrow of Paradise, *Edwards, Nat. Hist. B.* iv. pl. 180 (1751).

Le Cardinal d'Angola, *Brisson, Orn.* vi. *Suppl.* p. 78 (1760).

Loxia erythrocephala, *Linn. Syst. Nat.* i. p. 301 (1760); *Gm. Syst. Nat.* i. p. 849 (1788); *Smith, Ill. Zool. S. Afr. B.* pl. 69 (1841).

Gros-bee du Brésil, *Daubenton, Pl. Ent.* iv. pl. 300. fig. 1.

Le Grivelin, *Buff. Hist. Nat. Ois.* iii. p. 461, pl. xxx. fig. 2 (1775); *Vieill. Ois. Chant.* p. 80, pl. 49 (1805).

Brasilian Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 122 (1783).

Paradise Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 122 (1783).

Loxia brasiliensis, *Bodd. Tabl. Pl. Ent.* p. 19 (1783); *Gm. Syst. Nat.* i. p. 848 (1788).

Coccothraustes erythrocephala, *Vieill. V. Dict. d'Hist. Nat.* xiii.

Amadina argus, *Reichenb. Singv.* p. 35, Taf. xii. fig. 108 (1861); *Gray, Hand-l. B.* ii. p. 53, no. 6745 (1870).

Adult male. Light ashy grey above, the upper tail-coverts ashy grey, with white tips and a subterminal blackish bar; wing-coverts like the back, the lesser coverts spotted with white at their ends, the median and greater series barred with white, before which is a subterminal black bar; bastard-wing, primary-coverts, and quills brown, externally edged with ashy, the inner secondaries tipped with white like the greater coverts; tail-feathers blackish, ashy brown towards the base, all but the centre feathers tipped with white, the outer one also edged with white externally; head dull scarlet as far as the nape; sides of face, ear-coverts, cheeks, chin, and upper throat also scarlet; hinder ear-coverts light ashy; lower throat and sides of neck very pale ashy, with a few dusky cross bars; fore neck and breast ashy brown, barred with white, each white bar fringed above and below with a narrow line of black; sides of body much more broadly barred with white and black, and tinged with fawn-coloured bases to the feathers, especially in the centre of the breast; under tail-coverts white, with dusky bases; under wing-coverts and axillaries pale isabelline, with dusky bars on the edge of the wing; quills dusky below, ashy along the inner web: "bill dusky blue; feet dirty flesh-colour; iris pale hazel; skin round eye red" (*F. Oates*). Total length 5·2 inches, culmen 0·45, wing 2·9, tail 1·8, tarsus 0·65.

Adult female. Differs from the male in wanting the red on the face and throat, the head being brown, slightly washed with red; the throat whitish, with narrow cross bars. Total length 4·8 inches, culmen 0·45, wing 2·9, tail 1·8, tarsus 0·65.

Young. Differs from the female in being reddish brown underneath, with no white spots or bars, and having the upper surface brown, barred with black, as in *A. fasciata*. This description is taken from Mr. F. Oates's Tati specimen, which looks very much as if it were the young of *A. fasciata* or of some kindred form not before known in South Africa.

Hab. South Africa.

| | | |
|--|--|---------------------------------|
| <i>a, b.</i> ♀; <i>c.</i> ♂ ad. sk. | South Africa. | Sir A. Smith [C.]. |
| <i>d.</i> ♂ ad. sk. | Griqualand (<i>T. C. Atmore</i>). | Sharpe Coll. |
| <i>e.</i> ♂ ad. sk. | Bloemfontein, June 18 (<i>Dr. Exton</i>). | Shelley Coll. |
| <i>f.</i> Juv. sk. | Tati River, Matabele-Land, Oct. 1 (<i>F. Oates</i>). | W.E. & C.G. Oates, Esqrs. [P.]. |
| <i>g, h, i.</i> ♂; <i>k, l, m.</i> ♀ ad. sk. | Makalaka Country (<i>Dr. Bradshaw</i>). | Shelley Coll. |
| <i>n.</i> ♂ ad. sk. | Damara-Land (<i>C. J. Anderson</i>). | Shelley Coll. |
| <i>o, p.</i> ♂ ♀ ad. sk. | Damara-Land (<i>C. J. A.</i>). | Sharpe Coll. |
| <i>q.</i> ♂ ad. sk. | Otjimbingue, Sept. 8 (<i>C. J. A.</i>). | Sharpe Coll. |
| <i>r.</i> ♂ ad. sk. | Otjimbingue, March 28 (<i>C. J. A.</i>). | Tweeddale Coll. |

21. STAGANOPLEURA.

Type.

- Staganopleura*, *Reichenb. Syst. Av. Nat. Taf. lxxv. fig. 25*
 (1851) *S. guttata*.
Sporothlastes, *Bp. (nec Cab.) Consp. i. p. 455 (1850)*..... *S. guttata*.

Range. Confined to Australia.

1. *Staganopleura guttata*.

White-headed Finch, *Lath. Gen. Syn. Suppl. i. p. 210, pl. 132*
 (1787) *.

Fringilla leucocephala, *Lath. Ind. Orn. p. xlviii (1790)*.

Loxia guttata, *Shaw, Mus. Lever. p. 47, fig. 2 of plate (1792)*.

Fringilla leucocephala, *Vieill. Ois. Chant. p. 50, pl. 26 (1805)*.

Spotted Grosbeak, *Lewin, Nat. Hist. Birds N. S. W. pl. xi. (1822)*.

Fringilla lathamii, *Vig. & Horsf. Trans. Linn. Soc. xv. p. 256 (1827)*.

Amadina guttata, *Gould, B. Austr. fol. iii. pl. 86 (1848)*; *Surt.*
Exped. Centr. Austr. ii. p. 27 (1849); *Gray, Gen. B. ii. p. 370*
 (1849); *Reichenb. Vög. Neuholl. p. 112 (1850)*; *Gray, Hand-l. B.*
ii. p. 56, no. 6789 (1870).

Sporothlastes guttata, *Bp. Consp. i. p. 455 (1850)*.

Steganopleura guttata, *Cab. Mus. Hein. Th. i. p. 172 (1850)*;
Reichenb. Singv. p. 20, Taf. v. figs. 44-46 (1852); *Gould, Handb.*
B. Austr. i. p. 417 (1865).

Amadina lathamii, *Diggle, Orn. Austr. pl. 49, fig. 5 (1870)*; *Keulem.*
Onze Vög. ii. pl. 52 (1873).

Estrilda (Steganopleura) guttata, *Ramsay, Proc. Linn. Soc. N. S. W.*
ii. p. 186 (1878); *id. Tab. List Austr. B. p. 10 (1888)*.

Adult male. General colour above brown; rump and upper tail-coverts rich crimson, with a patch of black feathers on the sides of the rump; wing-coverts like the back; bastard wing, primary-coverts, and quills dusky brown, edged with brown like the back, more ashy on the primaries; tail-feathers black; crown of head and hind neck ashy grey; lores black, with a hoary whitish line above; sides of face and ear-coverts more pearly grey below the eye; cheeks and throat white, followed by a broad black band across the fore neck, the lateral feathers having white spots at the end; breast and abdomen pure white; sides of body and flanks black.

black and greyish white; in other respects the plumage nearly resembles the adult. (*Gould.*)

Hab. South Australia to New South Wales, and north to the Wide-Bay district.

| | | |
|------------------------------|---|--------------------------|
| <i>a, b.</i> Ad. et juv. st. | Australia. | J. Gould, Esq. [P.]. |
| <i>c.</i> Ad. sk. | Australia. | Rev. A. Strong [P.]. |
| <i>d.</i> ♀ ad. sk. | Australia. | Forbes Coll. |
| <i>e.</i> Juv. sk. | Australia. | Sir T. Mitchell [P.]. |
| <i>f.</i> ♀ juv. sk. | South Australia. | Gould Coll. |
| <i>g.</i> Ad. st. | South Australia. | Sir G. Grey [P.]. |
| <i>h.</i> ♀ ad. sk. | South Australia (<i>J. G.</i>). | Gould Coll. |
| <i>i.</i> Ad. sk. | New South Wales. | Forbes Coll. |
| <i>k, l.</i> Ad. sk. | New South Wales (<i>J. T. Cockerell</i>). | Salvin-Godman Coll. |
| <i>m.</i> Ad. sk. | New South Wales. | R. B. Sharpe, Esq. [P.]. |

22. ZONÆGINTHUS.

Zonæginthus, *Cab. Mus. Hein.* Th. i. p. 171 (1850)..... ^{Type.} *Z. bellus*.

Range. Confined to Australia.

Key to the Species.

- a.* No red spot on the ear; under surface transversely narrowly barred *bellus*, p. 293.
- b.* A crimson ear-spot; throat and fore neck brown, transversely barred with black; rest of under surface largely barred and spotted with white *oculatus*, p. 294.

1. *Zonæginthus bellus*.

Black-lined Grosbeak, *Lath. Gen. Syn. Suppl.* ii. p. 198 (1801).

Nitid Grosbeak, *Lath. t. c.* p. 198, pl. 131 (1801).

Loxia bella, *Lath. Ind. Orn. Suppl.* ii. p. xlvii (1801).

Loxia nitida, *Lath. t. c.* p. xlvii (1801); *Vieill. Ois. Chant.* p. 93, pl. 60 (1805).

Fringilla bella, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 257 (1827).

Estrela bella, *Gould, B. Austr.* fol. iii. pl. 78 (1848); *Pelz. Ibis*, 1873, p. 115.

Amadina nitida, *Gray, Gen. B.* ii. p. 370 (1849).

Astrilda bella, *Reichenb. Vög. Neuhol.* p. 90 (1850).

Zonæginthus bellus, *Cab. Mus. Hein. T.* i. p. 171 (1850); *Gould, Handb. B. Austr.* i. p. 406 (1855).

Sporothlastes nitida, *Bp. Consp.* i. p. 455 (1850).

Zonæginthus nitidus, *Reichenb. Singv.* p. 13, Taf. iii. figs. 19, 20 (1862).

Amadina bella, *Gray, Hand-l. B.* ii. p. 57, no. 679.3 (1870).

Estrela (Zonæginthus) bella, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 186 (1878); *id. Tab. List Austr. B.* p. 10 (1888).

Adult. Brown, vermiculated with very narrow blackish cross lines, less distinct on the head and mantle, more pronounced on the back and scapulars and wing-coverts; greater coverts and secondaries more distinctly barred with blackish cross lines, the latter

somewhat greyer; primaries brown, scarcely barred at all with lighter brown on the outer web; lower rump and upper tail-coverts bright crimson; centre tail-feathers black, washed near the base with dull crimson, the remainder barred with light brown on the outer web; head and sides of face, ear-coverts and sides of neck brown, like the back, but so finely vermiculated as to appear almost uniform; lores and a narrow frontal band as well as the feathers round the eye black; cheeks a little greyer than the ear-coverts; under surface of body silvery grey, more coarsely vermiculated with black cross bars, finer on the throat and fore neck, the breast and abdomen having whiter and coarser bars; abdomen and under tail-coverts black; under wing-coverts pale fulvous brown, with remains of dusky vermiculations: "bill crimson, becoming paler at the base of the upper mandible; feet flesh-colour; iris very dark brown; eyelash beautiful light blue" (*J. Gould*). Total length 4.4 inches, culmen 0.45, wing 2.2, tail 1.7, tarsus 0.65.

The sexes are alike in colour. (*Gould*.)

Young. Much browner and more dusky than the adults; the head uniform brown; the black on the lores and base of forehead scarcely indicated; under surface of body browner, with indistinct vermiculations of blackish cross lines, but not distinct cross-barring, as in the adult: bill dusky.

Hab. New South Wales; South Australia; Interior Province to Wide Bay District (*E. P. R.*).

| | | |
|------------------------|----------------------------------|--------------------------|
| <i>a, b.</i> Ad. sk. | Australia. | F. Nicholson, Esq. [P.]. |
| <i>c.</i> Juv. sk. | Australia. | Forbes Coll. |
| <i>d, e.</i> Ad. ; | New South Wales (<i>J. T.</i> | Salvin-Godman Coll. |
| <i>f.</i> Juv. sk. | <i>Cockerell</i>). | |
| <i>g.</i> ♂ ad. sk. | South Australia. | Sir G. Grey [P.]. |
| <i>h, i.</i> Ad. sk. | Tasmania (<i>J. B. Jukes</i>). | Voy. H.M.S. 'Fly.' |
| <i>k, l.</i> Ad. st. | Tasmania. | Ronald Gunn, Esq. [P.]. |
| <i>m, n.</i> ♂; | Bryn Estyn, New Norfolk, | C. G. H. Lloyd, Esq. |
| <i>o, p.</i> ♀ ad. sk. | Tasmania. | [P.]. |

2. *Zonæginthus oculatus*.

Fregilla oculata, *Quoy et Gaimard*, *Voy. d. l'Étude*, p. 211, pl. 18.

nally barred with narrow lines of black, the inner secondaries barred across; tail-feathers dusky brown, narrowly barred with black, the central feathers crimson near the base of the outer web; a narrow frontal line, lores, and feathers below the eye black; below the hinder part of the eye a spot of crimson; ear-coverts, cheeks, throat, and chest paler brown, very finely vermiculated on the sides of the face and throat, more coarsely lined on the fore neck and chest; remainder of under surface white, barred with black, the spots more ovate on the sides of the breast; under tail-coverts like the breast; thighs pale brown, very finely vermiculated with blackish lines; under wing-coverts ashy whitish, with a few dusky cross lines: "bill bright vermilion, the base of the upper mandible edged with pearl-grey; eyelash greenish blue; legs yellowish grey" (*J. Gould*). Total length 4·5 inches, culmen 0·5, wing 2·2, tail 1·8, tarsus 1·05.

Adult female. Similar to the male.

Young. Similar to the adults, but much duller in colour, especially the crimson on the rump and base of tail-feathers; no crimson spot below the eye; entire under surface pale brown, with narrow lines of blackish and a few whitish interspaces, producing a mottled appearance.

Hab. Western and South-western Australia.

| | | |
|--------------------------------------|--|------------------------------|
| <i>a.</i> Ad. sk. | Australia. | Purchased. |
| <i>b, c.</i> Ad.; <i>d.</i> Juv. sk. | Australia. | Forbes Coll. |
| <i>e.</i> Ad. sk. | West Australia (<i>J. T. Cockerell</i>). | Salvin-Godman Coll. |
| <i>f.</i> Ad. st. | West Australia. | <i>J. Gould, Esq. [P.]</i> . |

23. EMBLEMA.

Emblema, *Gould, P. Z. S.* 1842, p. 17..... Type.
E. picta.
Range. Confined to Australia.

1. Emblema picta.

Emblema picta, *Gould, P. Z. S.* 1842, p. 17; *id. B. Austr.* fol. iii. pl. 97 (1848); *Reichenb. Vög. Neuhol.* p. 118 (1850); *Bp. Conspect. Av.* i. p. 461 (1850); *Reichenb. Singv.* p. 21, Taf. vi. figs. 47, 48 (1861); *Gould, Handb. B. Austr.* i. p. 429 (1865); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 187 (1878); *id. op. cit.* (2) i. pp. 881, 1093 (1887); *id. Tab. List Austr. B.* p. 10 (1888).
Estrela picta, Gray, Hand-l. B. ii. p. 53, no. 6739 (1870).

Adult male. General colour above pale brown, the wing-coverts like the back; quills darker brown; rump and upper tail-coverts rich scarlet; tail-feathers blackish, with a little scarlet on the edges; head brown like the back, as also the sides of the face and sides of neck; lores, a narrow eyebrow, feathers below the eye, and fore part of cheeks scarlet; throat and under surface of body black, the chin and upper throat with scarlet-tipped feathers; centre of fore neck and chest also scarlet; sides of the black breast and

abdomen spotted with white; sides of body and flanks brown; under tail-coverts black; under wing-coverts fulvescent: "upper mandible black, tipped with scarlet; under mandible scarlet, with a triangular patch of livid blue at the base" (*F. Gibson*). Total length 4.2 inches, culmen 0.45, wing 2.2, tail 1.45, tarsus 0.55.

Adult female. Similar to the male, but with only the lores and the feathers above the eye scarlet; no red on the cheeks or throat; the latter, as well as the fore neck, black, spotted with white; the whole of the under surface browner below and more plentifully spotted with white; only a tinge of scarlet on the breast. Total length 4 inches, culmen 0.5, wing 2.2, tail 1.25, tarsus 0.55.

The males differ from each other in the amount of scarlet, which sometimes extends over the whole of the throat and down the entire breast.

Hab. Northern and Central Australia.

| | | |
|--------------|---------------------------------|-----------------|
| a. ♀ ad. sk. | Champion Bay. | Purchased. |
| b. ♂ ad. sk. | Interior of Northern Australia. | F. Gibson [O.]. |
| c. ♂ ad. sk. | Interior of Northern Australia. | Forbes Coll. |
| d, e. ♂; | Interior of Northern Australia | Gould Coll. |
| f. ♀ ad. sk. | (<i>F. Gibson</i>). | |

24. ZONOGASTRIS.

| | |
|---|----------------------|
| <i>Zonogastria</i> , <i>Cab. Mus. Hein.</i> Th. i. p. 172 (1850)..... | Type. |
| <i>Marquetia</i> , <i>Reichenb. Singv.</i> p. 48 (1861)..... | <i>Z. citerior</i> . |
| | <i>Z. melba</i> . |

Range. Confined to Africa.

Key to the Species.

- a. Red colour of head not extending beyond the eye, but produced over the fore neck.
 - a'. Colour of head and throat scarlet vermilion . . . *melba*, p. 296.
 - b'. Colour of head and throat rosy vermilion . . . *soudanensis*, p. 298.
- b. Scarlet colour of head extending over the eyebrow and behind the eye, but confined to the upper throat; the lower throat golden yellow like the fore neck . . . *citerior*, p. 299.

Fringilla elegans, *Gm. Syst. Nat.* i. p. 912 (1788); *Vieill. Enc. Méth.* iii. p. 984 (1823); *id. Gal. Ois.* p. 77, pl. lxiv. (1823-34).

Fringilla beau Marquet, *Vieill. Ois. Chant.* p. 49, pl. 25 (1805).

Loricilla elegans, *Less. Traité*, p. 444 (1831).

Estrela speciosa, *Gray, Gen. B.* ii. p. 329 (1849).

Pytelia elegans, *Bp. Consp. Afr.* i. p. 461 (1850).

Zonogastris melba, *Cab. Mus. Hein.* i. p. 172, note (1850).

Pytelia melba, *Strickl. Contr. Orn.* 1852, p. 150; *Finsch & Hartl. Fög. Ostaf.* p. 441 (1870); *Sharpe, Cat. Afr. B.* p. 63 (1871); *Gurney in Anders. B. Dam. Id.* p. 178 (1872); *Buckley, Ibis*, 1874, p. 382; *Sharpe & Bourcier, Bull. Soc. Zool. France*, i. p. 49 (1876); *Reichen. J. f. O.* 1877, pp. 29, 172; *Fischer, J. f. O.* 1878, p. 282; *Bocage, Orn. Angola*, p. 355 (1881); *Sharpe in Oates' Matabele-Land*, App. B, p. 320 (1881); *Shelley, Ibis*, 1882, p. 353; *Böhm, J. f. O.* 1883, p. 184; *Sharpe, ed. Layard's B. S. Afr.* p. 468 (1884); *Böhm, J. f. O.* 1884, p. 200; *Shelley, Ibis*, 1883, p. 319; *Büttik. Notes Leyden Mus.* xi. p. 74 (1888); *Shelley, Ibis*, 1888, p. 302; *id. P. Z. S.* 1888, p. 30.

Marquetia elegans, *Reichenb. Singr.* p. 48, pl. 18, figs. 150, 100 (1861).

Estrela melba, *Layard, B. S. Afr.* p. 100 (1867); *Gray, Hand-l. B.* ii. p. 52, no. 6720 (1870); *Ayres, Ibis*, 1890, p. 205.

Pytelia citerior (*nec Strickl.*), *Fischer & Reichen. J. f. O.* 1870, p. 352; *Fischer, Zeitschr. ges. Orn.* i. p. 324 (1884); *Reichen. J. f. O.* 1887, p. 71.

? *Pytelia elegantissima*, *Böhm, J. f. O.* 1884, p. 178.

Adult male. General colour above olive-yellow; the lower rump and upper tail-coverts dull scarlet; wing-coverts like the back; bastard-wing and primary-coverts dusky, with olive-yellow margins; quills dusky brown, edged with olive-yellow, ashy on the margins of the primaries, the inner secondaries almost entirely olive-yellow; centre tail-feathers dull scarlet, with black shafts, the remainder black, dull scarlet externally; crown of head and hind neck slaty grey, as also the ear-coverts and sides of neck; forehead scarlet; lores dusky; fore part of cheeks scarlet, the hinder part slaty grey; throat scarlet; fore neck olive-yellow with a golden tinge; chest washed with yellow, the feathers spotted with white at the ends, and subterminally barred with white and black; the spotted character disappearing on the rest of the under surface, which is more regularly barred with white and black, especially on the sides of the body; thighs ashy brown; lower abdomen and under tail-coverts white, the latter with a fulvous tinge; under wing-coverts ashy, washed with yellow near the edge of the wing; quills below ashy, lighter along the inner edge: "bill light brick-red, the culmen dusky; feet light ashy brown (*T. Ayres*); feet and toes purplish; iris orange-brown" (*C. J. Andersson*), "light hazel" (*T. Ayres*). Total length 4·3 inches, culmen 0·5, wing 2·25, tail 1·0, tarsus 0·7.

Adult female. Differs from the male in being duller in colour, in wanting all the scarlet on the head and sides of face, which parts are ashy grey; the throat also is light ashy, with slight indications of whitish bars; there is also no golden yellow on the fore neck and breast, the under surface being less strongly barred and spotted than in the male: "bill crimson, feet dark brown; iris red" (*T. E.*

Buckley). Total length 4·5 inches, culmen 0·5, wing 2·3, tail 1·7, tarsus 0·6.

Young male. Similar to the adult female, and without any red on the forehead or throat, but duller in colour, being brown with a wash of olive on the head; under surface of body ashy brown, buffy whitish on the lower abdomen and under tail-coverts, and with scarcely any indications of whitish cross barring.

Hab. From the Congo region in W. Africa to Angola and Damara Land; thence to the Transvaal and Natal; throughout East Africa to Equatorial Africa.

| | | |
|------------------------------|--|-----------------------------------|
| a. ♂ ad. sk. | Landana, Congo, Feb. (<i>L. Petit</i>). | Shelley Coll. |
| b. ♂ ad. sk. | Quanza River, Angola. | Sharpe Coll. |
| c. ♂ ad. sk. | Quanza River, Angola. | Shelley Coll. |
| d. ♂ ad. sk. | Benguela. | Monteiro Coll. |
| e. ♂ ad. sk. | Otjimbingue, Damara-Land, Aug. 21 (<i>C. J. Anderson</i>). | Tweeddale Coll. |
| f. ♀ ad.; g, h, i. Juv. sk. | Otjimbingue, July, Oct. (<i>C. J. A.</i>). | Sharpe Coll. |
| k, l. ♂ ♀ ad.; m. ♂ juv. sk. | Otjimbingue, July, Sept. (<i>C. J. A.</i>). | Shelley Coll. |
| n. ♀ ad. st. | Magaliesbergen, Transvaal, Dec. 22. | Prof. Wahlberg [C.]. |
| o, p. ♂ ♀ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |
| q. ♂ ad. sk. | Natal. | Sharpe Coll. |
| r, s. ♂ ♀ ad. sk. | Weenen, Natal. | Shelley Coll. |
| t. ♀ ad. sk. | Bamangwato, Oct. 26 (<i>T. E. Buckley</i>). | Shelley Coll. |
| u. ♂ ad. sk. | Matabele-Land, Sept. 20 (<i>T. E. Buckley</i>). | Shelley Coll. |
| v, w, x. ♂ imm. sk. | Tati, Matabele-Land, Sept., Oct. (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.]. |
| y. ♂ ad. sk. | Tete, Zambesi (<i>Sir J. Kirk</i>). | Livingstone Exped. |
| z. Ad. sk. | Lamu, East Africa (<i>Sir J. Kirk</i>). | Shelley Coll. |
| a', b'. ♂ ♀ ad. sk. | Manda Island, Nov. | F. J. Jackson, Esq. [P.]. |
| c'. ♂ ad. sk. | Kibiro, Oct. 11. | Emin Pasha [P.]. |

Adult female. Similar to the female of *Z. m. m. m.* but with a more yellowish throat and upper breast. The lower breast and belly are more yellowish. The tail is more yellowish.

Hab. N.E. Africa across to Senegambia.

| | | |
|--------------|--|-------------|
| a. ♀ ad. sk. | Bejook, Bogon-Land, July 17, 1898 (H. J. Jenne). | Shaggy Call |
| b. ♂ ad. sk. | Rairo, Aug. 13, 1900 (H. J. Jenne). | Shaggy Call |
| c. ♂ ad. sk. | Bejook, Bogon-Land, July 17, 1898 (H. J. Jenne). | Shaggy Call |

2. *Zonogasteris ciliaris*

The species is similar to *Zonogasteris m. m. m.* but with a more yellowish throat and upper breast.

Adult male. Similar to the male of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult female. Similar to the female of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult male. Similar to the male of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult female. Similar to the female of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult male. Similar to the male of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult female. Similar to the female of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult male. Similar to the male of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult female. Similar to the female of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult male. Similar to the male of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult female. Similar to the female of *Z. m. m. m.* but with a more yellowish throat and upper breast.

Adult male. Similar to *Z. m. m. m.* but having the scarlet confined to the chin and upper throat; the lower throat and lower neck golden yellow, brighter than in *Z. m. m. m.*; "bill coral red. Feet reddish. iris red" (Huglin). Total length 4.2 inches, culmen 0.4, wing 2.4, tail 1.8, tarsus 0.6.

Adult female. Similar to the female of *Z. m. m. m.* but very much paler and much more faintly barred below, the throat ashy white, with scarcely a trace of dusky cross bars. Total length 4.1 inches, culmen 0.5, wing 2.3, tail 1.7, tarsus 0.6.

Hab. N.E. Africa across to Senegambia.

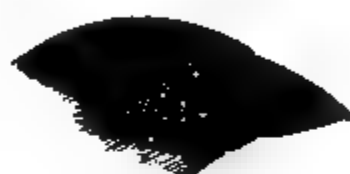
| | | |
|--------------|--|----------------------|
| a. ♀ ad. sk. | Zoulla, Annesley Bay, Abyssinia, Feb. 4, 1898. | W. T. Blanchard, Bay |
| b. ♂ ad. sk. | Anseba Valley, July 27, 1898. | W. T. Blanchard, Bay |
| c. ♂ ad. sk. | Bejook, Bogon-Land, July 17, 1898 (H. J. Jenne). | Two-bleb Call |
| d. ♂ ad. sk. | Rairo, Aug. 13, 1900 (H. J. Jenne). | Shaggy Call |

| | | |
|--------------|--------------------------------------|--------------------|
| e. ♂ ad. sk. | St. Louis, Senegambia (L. Laglaize). | Tweeddale Coll. |
| f. ♂ ad. sk. | St. Louis. | L. Laglaize [C.]. |
| g. ♀ ad. sk. | Senegambia. | Forbes Coll. |
| h. ♂ ad. sk. | Senegambia. | Sir A. Smith [P.]. |

25. PYTELIA.

Type.

Pytilia, *Swains. B. W. Afr.* i. p. 203, note (1837) . . P. phœnicoptera.
 Pytelia, *Swains. Classif. B.* ii. p. 280 (1837) P. phœnicoptera.

Head of *Pytelia afra*.

Range. Confined to Africa.

Key to the Species.

- a. With red or orange on the wings, and with crimson on the tail-feathers; no ovate white spots on under surface.
- a'. Outer aspect of quills bright red; no red on the face in the male.
- a''. Bill slaty grey *phœnicoptera*, p. 301.
- b''. Bill red *lineata*, p. 301.
- b'. Outer aspect of quills orange or golden yellow.
- c'. Under surface of body slaty grey with narrow white cross bars, but no orange on the breast. *hypogrammica*, p. 302.
- d''. Under surface strongly tinged with olive-yellow, especially on the breast, and barred with white and dusky olive on the flanks. *afra*, p. 302.

1. *Pytelia phœnicoptera*.

- Pytelia phœnicoptera*, *Swains. B. W. Afr.* i. p. 208, pl. 10 (1837); *Bp. Consp.* i. p. 462 (1850); *Hartl. Orn. W.-Afr.* pp. 143, 274 (1857); *Reichenb. Singr.* p. 25, Taf. vii. fig. 65 (1831); *Astin. Cat. descr. Ucc.* p. 73 (1834); *Heugl. J. f. O.* 1834, p. 248; *id. Orn. N.O.-Afr.* i. p. 622 (1870); *Reichen. J. f. O.* 1875, p. 42; *Shelley, Ibis*, 1886, p. 321; *id. P. Z. S.* 1888, p. 31.
- Estrela erythroptera*, *Less. Echo du Monde Sav.* 1844, p. 205; *id. Descr. Mamm. et Ois.* p. 343 (1847).
- Estrela phœnicoptera*, *Gray, Gen. B.* ii. p. 300 (1840); *id. Hand-l. B.* ii. p. 53, no. 6732 (1870).
- Zonogastis phœnicoptera*, *Cab. Mus. Hein. Th.* i. p. 172, note (1850); *Heugl. J. f. O.* 1868, p. 20.

Adult. General colour above ashy brown with a slight wash of crimson, a little more distinct on the scapulars; lower back, rump, and upper tail-coverts dark crimson; lesser wing-coverts brighter and more vermilion; median and greater coverts ashy brown, with vermilion edges; bastard-wing, primary-coverts, and quills dusky brown margined with dull vermilion, the inner secondaries entirely ashy brown; centre tail-feathers dark crimson, the remainder blackish, externally dark crimson; crown of head and hind neck rather lighter ashy than the back; base of forehead, lores, sides of face, ear-coverts, cheeks, throat, sides of neck, and fore neck clearer and more hoary grey, the latter with some narrow whitish cross lines, slightly visible also on the throat; chest and remainder of under surface light ashy grey, barred with white, these bars more distinct on the lower breast and abdomen, the dusky bars browner; lower abdomen and vent white; sides of body, flanks, and thighs barred with dusky brown and white; under tail-coverts dusky brown with some white bars near the ends of the feathers; under wing-coverts and axillaries white, the edge of the wing vermilion; quills below dusky, ashy brown along the inner edge: "bill black; feet pale brown; iris red" (*Emin Pasha*). Total length 4.2 inches, culmen 0.45, wing 2.2, tail 1.35, tarsus 1.3.

The specimen from Lado differs from the Gambian bird in having the under wing-coverts barred with ashy, but as slight traces of similar bars can be traced in the former bird, these differences are probably only due to age. The dimensions are the same, but the bill is a little stouter in the Lado example.

Hab. From Senegambia to the Upper Nile regions and Equatorial Africa.

| | | |
|--------------|-----------------------------------|------------------|
| a. Ad. sk. | River Gambia. | Purchased. |
| b. ♂ ad. sk. | Lado, Equatorial Africa, Aug. 16. | Emin Pasha [P.]. |

2. *Pytelia lineata*.

- Fringilla (Pytelia) lineata*, *Heugl. Syst. Uccora.* p. 40 (1854), descr. nullâ).
- Pytelia lineata*, *Hartl. Orn. Westafr.* p. 146, notes (1857); *Heugl. J. f. O.* 1863, p. 17 (descr. orig.); *Shelley, Ibis*, 1886, p. 321.

Fringilla polyzona, *Heugl. J. f. O.* 1867, p. 303 (*ex Pr. Würtemb. MSS.*).

Zonogastris lineata, *Heugl. J. f. O.* 1868, p. 21; *id. Orn. N.O.-Afr.* p. 623, pl. 19. fig. 1 (1870).

Estrela lineata, *Gray, Hand-l. B.* ii. p. 53, no. 6737 (1870).

Adult. Similar to *P. phoenicoptera*, but with the bill more slender and of a rosy-cinnabar colour; the red colour of the rump, wings, and tail more extensive; edge of wing crimson: iris scarlet; feet flesh-colour. Total length 4" 6" to 4" 8", culmen $4\frac{1}{2}$ " to 5", wing 2" 3", tail 1" $7\frac{1}{4}$ " to 1" $9\frac{1}{4}$ ", tarsus 7". (*Heuglin.*)

Hab. Western Abyssinia.

3. *Pytelia hypogrammica*. (Plate XII. fig. 2.)

Pytelia afra (*nec Gm.*), *Hartl. Orn. W.-Afr.* p. 145 (1857).

Pytelia hypogrammica, *Sharpe, Ibis*, 1870, p. 56; *id. Cat. Afr. B.* p. 67 (1871); *Shelley & Buckley, Ibis*, 1872, p. 280; *Shelley, Ibis*, 1883, p. 553; *id. Ibis*, 1886, p. 320.

Estrela hypogrammica, *Gray, Hand-l. B.* ii. p. 53, no. 6738 (1870).

Adult (type of species). General colour above slaty grey; the forehead, cheeks, ear-coverts, throat, rump, and upper tail-coverts rich crimson; wing-coverts orange, the lesser series tinged with red; primary-coverts and quills dark brown, externally edged with orange; two centre tail-feathers like the rump, the rest blackish brown, margined with crimson; entire under surface of body dark slaty grey, with narrow transverse white lines, broader on the abdomen: bill black; feet light brown (in skin): "iris crimson" (*W. A. Forbes*). Total length 3.5 inches, culmen 0.45, wing 2.2, tail 1.5, tarsus 0.6.

Adult female. Similar to the male, but wanting the crimson on the head and throat; the white barring on the under surface a little more distinct. Total length 3.8 inches, culmen 0.45, wing 2.2, tail 1.3, tarsus 0.55.

Hab. West Africa, from the Gold Coast to the Niger.

a. ♂ ad. sk.

Fantee.

Sharpe Coll.

(Type of species.)

- Pytelia melba*, pt., *Finsch & Hartl. Vög. Ostaf.* p. 442 (1870).
Pytelia cinereigula, *Cab. Orn. Centralbl.* 1877, p. 182; *id. J. f. O.* 1878, pp. 101, 230; *Fischer & Reichen. J. f. O.* 1878, p. 265; *Fischer, J. f. O.* 1880, p. 193; *Shelley, P. Z. S.* 1881, p. 584; *Schalow, J. f. O.* 1884, p. 177; *Böhm, J. f. O.* 1885, p. 60; *Schalow, J. f. O.* 1886, p. 413; *Matschie, J. f. O.* 1887, p. 154.
Pytelia wieneri, *Russ, Gefied. Welt*, 1887, p. 317; *Forbes, P. Z. S.* 1880, p. 40, pl. 47. fig. 2.
Pytelia pyropteryx, *Schalow, J. f. O.* 1884, pp. 177, 178 (*ex Böhm, MSS.*).

Adult male. General colour above dull orange-yellow; lower rump and upper tail-coverts crimson; wing-coverts like the back, the median and greater series washed externally with orange-scarlet; bastard-wing, primary-coverts, and quills dusky brown, with orange or orange-scarlet on the outer webs; centre tail-feathers dark crimson, the remainder black, dark crimson externally; crown of head and nape ashy grey, as also the sides of the neck and lower throat; the forehead, eyebrow, feathers round eye, sides of face, ear-coverts, and fore part of cheeks and upper throat crimson; hinder cheeks ashy grey; remainder of under surface of body olive-yellow with a golden olive tinge on the fore neck; breast barred irregularly with white, these bars more distinct on the abdomen; sides of body also slightly barred; under tail-coverts dusky olive with white tips and bars; under wing-coverts whitish, with ashy bases, the edge of the wing washed with olive-yellow; quills below dusky blackish, ashy along the inner edge: "bill red, base of upper mandible brown; feet horn-yellow; iris orange" (*G. A. Fischer*). Total length 4.7 inches, culmen 0.5, wing 2.35, tail 1.4, tarsus 0.6.

Adult female. Similar to the male, but duller in colour and wanting the red on the forehead, face, and throat. Total length 4.5 inches, culmen 0.45, wing 2.3, tail 1.25, tarsus 0.6.

Young. Similar to the adult female, but with a paler and more horn-brown bill, and whiter throat.

Hab. West Africa, from the Congo to Angola and Mossamedes and across to Lake Tanganyika and the Zanzibar district of Eastern Africa.

| | | |
|---|--|-----------------------|
| <i>a.</i> Ad. sk. | West Africa. | A. Wiener, Esq. [P.]. |
| <i>b, c.</i> ♂ ad.; <i>d.</i> ♀ ad. sk. | Landana, Congo, Feb., March (<i>L. Petit</i>). | Shelley Coll. |
| <i>e.</i> ♀ ad. sk. | Ujiji, Upper Congo, Aug. | F. Bohndorff [C.]. |
| <i>f.</i> ♂ ad. sk. | Kassongo, June. | F. Bohndorff [C.]. |
| <i>g.</i> Ad. sk. | Mamboio, E. Africa (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>h, i, k.</i> Ad. sk. | Lamo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>l.</i> Ad. sk. | Dar-es-Salaam (<i>Sir J. Kirk</i>). | Shelley Coll. |

5. *Pytelia sharpii*.

Amadina sharpii, *Nichols. P. Z. S.* 1878, p. 130, pl. x.

Munia sharpii, *Shelley, Ibis*, 1886, p. 311.

Pytelia sharpii, *Büttik. Notes Leyden Mus.* x. p. 91 (1888).

Adult (type of species). General colour above olive-yellow, the scapulars and wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, externally olive-yellow, brighter on the primaries, the inner secondaries entirely olive-yellow like the back; tail-feathers olive-yellow, the inner webs dusky brown towards the base; crown of head and hind neck light grey, the base of the forehead, lores, eyebrow, sides of face, ear-coverts, and cheeks white; throat black, extending up behind the ear-coverts; sides of neck and under surface of body light grey; the abdomen slightly washed with olive-yellow; sides of body and flanks bright golden yellow, more brilliant on the sides of the breast; thighs and under tail-coverts ashy, washed with olive-yellow; under wing-coverts and axillaries isabelline, washed with yellow near the edge of the wing; quills below dusky, ashy along the inner edge. Total length 4.2 inches, culmen 0.4, wing 2.3, tail 1.9, tarsus 0.65.

An example from the Gambia is much duller in colour and has the ear-coverts blue-grey like the head, leaving the cheeks greyish white; the yellow on the sides of the body is not nearly so brilliant. This may be the *adult female*.

Hab. West Africa, from Senegambia to Dahomey.

| | | |
|------------|-------------------------------|---|
| a. Ad. sk. | Abeokuta (<i>F. Robin</i>). | F. Nicholson, Esq
(Type of species.) |
| b. Ad. sk. | River Gambia. | Purchased. |

6. *Pytelia schlegeli*.

Pytelia schlegeli, *Sharpe, Ibis*, 1870, p. 482, pl. xiv. figs. 2, 3, *Oust. N. Arch. Mus.* (2) ii. p. 112 (1879); *Büttik. Notes Leyden Mus.* vii. p. 201 (1885); *Shelley, Ibis*, 1886, p. 319.

Adult male (type of species). General colour above olive-green, golden brown on the rump and upper tail-coverts; sides of face and chin crimson; throat and upper part of breast orange-brown, tinged with crimson; sides of neck like the back; quills brown, externally like the back, the secondaries almost entirely olive-green; tail-feathers olive-green, blackish internally; breast and remainder of under surface blackish, slightly washed with olive-green and thickly

7. *Pytelia nitidula*.

Estrela nitidula, *Hartl. Ibis*, 1865, p. 269; *Gurney, Hand-l. B. ii.* p. 50, no. 6691 (1870); *Sharpe, ed. Layard's B. S. Afr.* p. 472 (1884).

Amadina hartlaubi, *Bianc. Spex. Zool. Mozamb.* xviii. p. 324, pl. iv. fig. 2 (1867).

Pytelia hartlaubi, *Sharpe, ed. Layard's B. S. Afr.* p. 469 (1884).

Pytelia nitidula, *Shelley, Ibis*, 1883, p. 319.

Adult. Olive-green, the rump and upper tail-coverts yellowish green, with an anteocular spot of orange-buff, extending also round the base of the mandible; under wing-coverts varied with olive and whitish, the abdomen prettily spotted with rounded white spots surrounded with black; tail and wings olivaceous; bill black; feet lead-colour. Total length 3" 2", bill 3½", wing 1" 9", tail 1" 2", tarsus 6". (*Hartlaub.*)

Hab. Natal to Mozambique.

a. ♂ imm. sk. Durban, Natal (*Gurdge*). Shelley Coll.

26. COCCOPYGIA.

Neisna, *Bp. Consp.* i. p. 460 (1850) *C. subllava*, Type
Coccopygia, *Reichenb. Singr.* p. 23 (1861) *C. dufresnii*.

Range. Confined to Africa.

Key to the Species.

- a.** Throat black *dufresnii* ♂, p. 305.
- b.** Throat grey.
 - a'.** Abdomen and under tail-coverts pale fulvous or isabelline buff *dufresnii* ♀, p. 305.
 - b'.** Abdomen yellow; under tail-coverts isabelline buff; sides of body green *quartinia*, p. 307.
 - c'.** Abdomen and under tail-coverts deep ochraceous *kilimensis*, p. 307.

1. *Coccopygia dufresnii*.

? Red-rumped Finch, *Brown, Ill. Zool.* p. 70, pl. xxix. (1776).

Fringilla dufresnii, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 181 (1817); *id. Enc. Méth.* iii. p. 980 (1823).

Fringilla erythronotus, *Vieill. t. c.* p. 242 (1817, ex *Temm. MSN.*).

Fringilla melanotis, *Temm. Pl. Col.* iii. pl. 221. fig. 1 (1833).

Estrela melanotis, *Gray, Gen. B.* ii. p. 308 (1840).

Estrela dufresnii, *Gray, Gen. B.* ii. p. 300 (1840); *Bp. Consp.* i. p. 460 (1850); *Hartl. Orn. W.-Afr.* p. 142 (1867); *Gurney, Ibis*, 1862, p. 32; *Layard, B. S. Afr.* p. 107 (1867); *Gurney, Ibis*, 1868, p. 162; *Gray, Hand-l. B.* ii. p. 51, no. 6703 (1870); *Sharpe, Cat. Afr. B.* p. 65 (1871); *Ayrton, Ibis*, 1880, p. 107; *Bocage, Orn. Angola*, p. 361 (1881); *Sharpe, ed. Layard's B. S. Afr.* pp. 460, 849 (1884); *Shelley, Ibis*, 1883, p. 330.

Estrela melanogenys, *Sunder. (Eft. K. Vet.-Akad. Stockh. 1850, p. 97.*

Estrela neiana, *Licht. Nomencl. Av. p. 48 (1854).*

Coccopygia dufrenoyi, *Reichenb. Singu. p. 23, Taf. vi. figs. 53, 54 (1861).*

Habropyga dufrenoyi, *Heugl. Orn. N.O.-Afr. i. pt. ii. p. 606, note (1870).*

Ortygospiza dufrenoyi, *Butler, Feilden, & Reid, Zool. 1882, p. 300.*

Adult male. General colour above olive-yellow, with a slight wash of crimson on the back; rump and upper tail-coverts crimson; wing-coverts like the back, as also the inner secondaries, with a wash of crimson on the latter as well as on the greater coverts; bastard-wing, primary-coverts, and primary-quills dusky, with ashy-olive margins; tail-feathers black; crown of head and hind neck pale slaty grey; lores, sides of face, ear-coverts, cheeks, and upper throat black; lower throat, sides of neck, and fore neck pearly grey, inclining to white behind the ear-coverts and extending on to the sides of the breast; centre of breast, abdomen, and under tail-coverts pale ochreous buff; sides of body, flanks, and thighs ashy brown; under wing-coverts ochreous buff; quills below dusky, ashy ochreous along the inner edge: "upper mandible black, lower one scarlet; feet very dark brown; iris crimson" (*T. Ayres*). Total length 3.6 inches, culmen 0.85, wing 1.8, tail 1.3, tarsus 0.55.

Adult female. Differs from the male in being paler and having more vermilion on the rump and upper tail-coverts, and in wanting the black mask on the face and throat, these parts being pearly grey, becoming ashy grey on the breast. Total length 3.5 inches, culmen 0.35, wing 1.9, tail 1.35, tarsus 0.55.

Hab. South Africa, from the Knysna to Natal, and the Transvaal to the Zambesi.

| | | |
|---------------------------------|---|--------------------|
| a. ♂ ad. sk. | South Africa. | Sir A. Smith [C.]. |
| b. ♂ ad.; c. ♂ juv. sk. | Knysna, Jan. (<i>C. J. Anderson</i>). | Shelley Coll. |
| d, e. ♂ ♀ ad.; f, g. ♂ imm. sk. | Knysna, Jan., March, April (<i>C. J. A.</i>). | Sharpe Coll. |
| h. ♀ ad. sk. | Grahamstown (<i>T. C. At-</i> | Shelley Coll. |

2. *Coccopygia quartinia* *.

- Bengali, *Des Mers, in Lefebvre's Voy. Abyss., Ois.* p. 117 (1845).
Estrela quartinia, *Bp. Consp.* i. p. 461 (1850); *Hartl. Orn. W.-Afr.* p. 142, note (1857); *Heugl. J. f. O.* 1868, p. 11; *Blanf. Geol. & Zool. Abyss.* p. 409 (1870); *Finsch, Trans. Z. S.* vii. p. 326 (1870); *Gray, Hand-l. B.* ii. p. 51, no. 6704 (1870).
Fringilla (Estrela) flaviventris, *Heugl. Syst. Uebers.* p. 40.
Coccopygia quartinia, *Reichenb. Singr.* p. 23 (1861); *Salvad. Ann. Mus. Genov.* (2) i. p. 178 (1884), vi. p. 282 (1888).
Estrela ernesti II., *Heugl. J. f. O.* 1862, p. 29.
Estrela ernesti, *Heugl. J. f. O.* 1868, p. 10.
Habropyga ernesti, *Heugl. Orn. N.O.-Afr.* i. p. 607, tab. xix. fig. 2 (1870).
Habropyga quartinia, *Heugl. t. c.* p. 608.
Coccopygia ernesti, *Heugl. Orn. N.O.-Afr.* iv, p. cxxxvii (1870).

Adult. Similar to *C. dufresnii*, but differing in its greener colouring and greener flanks and sides of body, leaving the centre of the breast, abdomen, and under tail-coverts more decidedly ochraceous than in *C. dufresnii*: "upper mandible deep black, lower one coral-red; feet blackish; iris red" (*Heuglin*). Total length 3·7 inches, culmen 0·3, wing 1·85, tail 1·45, tarsus 0·55.

Adult female. Differs from the male in the same way as the female of *C. dufresnii* by the want of the black mask. Total length 3·6 inches, culmen 0·35, wing 1·9, tail 1·4, tarsus 0·55.

Hab. N.E. Africa. Dr. Rochebrune says that it occurs also in Senegambia, but the statement requires confirmation.

| | | |
|--------------|---|------------------------------|
| a. Ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Museum. |
| b. ♂ ad. sk. | Ankober, Jan. 1842 (<i>Sir W. C. Harris</i>). | India Museum. |
| c. ♀ ad. sk. | Senafé, Abyssinia, Feb. 26. | W. T. Blanford, Esq.
[C.] |

Subsp. a. *Coccopygia kilimensis*.

? *Estrela quartinia*, *Bocage, Orn. Angola*, p. 360 (1881).

Adult male. Similar to *C. quartinia*, but differing in the deep ochraceous breast and abdomen. Like *C. quartinia* there is no black on the face. Total length 3·3 inches, culmen 0·35, wing 1·85, tail 1·2, tarsus 0·55.

Hab. Kilimanjaro district. It may be the form of *C. quartinia* which extends across to Angola.

| | | |
|--------------|----------------------|----------------------------|
| a. ♂ ad. sk. | Kilimanjaro, Aug. 6. | H. C. V. Hunter, Esq. [P.] |
|--------------|----------------------|----------------------------|

* *Estrela savatieri*, *Rochebr. Faun. Sénég., Ois.* p. 252, pl. xxi. fig. 1 (1884); *Shelley, Ibis*, 1886, p. 330.

Is probably the same as *C. quartinia*.

27. HYPOCHÆRA*.

Type.
PHypochæra, *Bp. Consp.* i. p. 450 (1850)*Range.* Confined to Africa.*Key to the Species.*

- a. With a gloss of steel-green or bottle-green, so that the effect of the plumage is greenish black.
 - a'. With the wings black, not contrasting strongly with the back *ænea*, p. 308.
 - b'. With the wings brown, contrasting greatly with the back; green gloss not so pronounced and approaching greenish black .. *amauropteryx*, p. 309.
- b. With a purplish or violet gloss.
 - c'. Wings dark, scarcely contrasting with the back; gloss of plumage purplish blue *ultramarina*, p. 309.
 - d'. Wings light brown, contrasting with the back; gloss of plumage more distinctly purple.
 - a''. Purplish gloss more lively and slightly more bluish *funerea*, p. 310.
 - b''. Purplish gloss more dead and general plumage more of a dead black both above and below *nigerrima*, p. 311.

1. *Hypochæra ænea*.

- ? Le Père noir à bec rouge, *Briss. Orn.* iii. p. 130 (1700).
- ? Moineau du Brésil, *Daubent. Pl. Enl.* iv. pl. 201. figs. 1, 2; *Buff. Hist. Nat. Ois.* iii. p. 483 (1775).
- ? *Fringilla chalybeata*, *P. L. S. Müll. Syst. Nat.*, Anhang, p. 255 (1776, *ex Daub.*); *Cass. Proc. Philad. Acad.* 1864, p. 255.
- ? Glossy Finch, *Lath. Gen. Syn.* ii. pt. i. p. 267 (1783).
- ? *Fringilla nitens*, *Gm. Syst. Nat.* i. p. 909 (1788, *ex Lath.*).
- Le Comba-sou, *Vieill. Ois. Chant.* p. 44, pl. 21 (1805).
- Fringilla nitens*, *Bonn. et Vieill. Enc. Méth.* iii. p. 955 (1823).
- Loxigilla nitens*, *Less. Traité*, p. 444 (1831).
- ? *Amadina nitens*, *Swains. B. W. Afr.* i. p. 199 (1837).
- Amadina nitens*, *Gray, Gen. B.* ii p. 370 (1849).
- Hypochæra nitens*, *Bp. Consp.* i. p. 450 (1850), *Cab. Mus. Hein*

| | | |
|-------------------------------|--|-----------------|
| a. ♂ ad. ; b, c.
♀ ad. sk. | River Gambia. | Sharpe Coll. |
| d. ♂ ad. sk. | River Gambia. | Shelley Coll. |
| e. ♂ ad. sk. | Dakar, Senegal (<i>L. Laglaize</i>). | Tweeddale Coll. |
| f. ♂ imm. sk. | West Africa. | Mr. Pulman [P.] |

2. *Hypochæra amauropteryx*.

Hypochæra nitens (*nec Gm.*), *Kirk, Ibis*, 1864, p. 322.

Amadina nitens (*nec Gm.*), *Layard, B. S. Afr.* p. 201 (1867).

Hypochæra ultramarina (*nec Gm.*), *Gurney, Ibis*, 1860, p. 213; *Sharpe, Cat. Afr. B.* p. 64 (1871, pt.); *Gurney in Anders. B. Dam. Ld.* p. 175 (1872); *Sharpe, ed. Layard's B. S. Afr.* p. 457 (1884, pt.).

? *Hypochæra ultramarina*, *Reichenb. Singr.* p. 54, pl. xxii. figs. 180, 191 (1861).

Hypochæra chalybeata (*nec Müll.*), *Barratt, Ibis*, 1876, p. 207; *Shelley, Ibis*, 1886, p. 339.

Adult male. With a steel-green gloss like the preceding, but altogether darker and appearing greenish black; wings brown, contrasting with the back. Total length 4 inches, culmen 0.4, wing 2.7, tail 1.5, tarsus 0.55.

Hab. South Africa from the Transvaal to the Zambesi and Mozambique, extending westwards to Ovampo-Land.

| | | |
|-----------------|---|------------------------------|
| a. ♂ ad. sk. | Rustenberg, E. Transvaal. | F. A. Barratt, Esq.
[C.]. |
| b. ♂ ad. sk. | Rustenberg, Jan. 5 (<i>W. Lucas</i>). | Shelley Coll. |
| c. ♂ ad. sk. | Zambesi. | Dr. Bradshaw [C.]. |
| d, e. ♂ ad. sk. | Tete, Zambesi (<i>Sir J. Kirk</i>). | Livingstone Expedition. |
| f. ♂ ad. sk. | Mozambique. | Dr. Queinzus [C.]. |
| g. ♂ ad. sk. | Ondonga, Ovampo-Land, Jan.
22, 1867 (<i>C. J. Anderson</i>). | Sharpe Coll. |

3. *Hypochæra ultramarina*.

Outre-mer, *Buff. Hist. Nat. Ois.* iv. p. 56 (1778, *ex Bruce, Icon.*).

Ultramarine Finch, *Lath. Gen. Syn.* ii. pt. i. p. 301 (1783).

Fringilla ultramarina, *Gm. Syst. Nat.* i. p. 927 (1788, *ex Lath.*).

Amadina nitens (*nec Gm.*), *Rüpp. Neue Wirb., Vög.* p. 101 (1835-40).

Philæterus nitens, *Strickl. P. Z. S.* 1850, p. 218.

Hypochæra ultramarina (*nec Gm.*), *Cab. Mus. Hein. Th.* i. p. 176 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 513 (1850); *Fischer, J. f. O.* 1885, p. 135; *Reichen. J. f. O.* 1887, p. 70.

Fringilla (*Amadina*) *nitens*, *Heugl. Syst. Uebers.* p. 41 (1850).

Hypochæra nitens, *Antin. Cat. descr. Ucc.* p. 70 (1864); *Sci. P. Z. S.* 1864, p. 110; *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 588 (1870); *Salvin, Cat. Strickl. Coll.* p. 247 (1882); *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 181 (1884).

Hypochæra nitens, var. *ultramarina*, *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 202 (1883); *Fischer, Zeitschr. ges. Orn.* i. p. 325 (1884).

Hypochæra nitens, *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 202 (1883).

Hypochæra chalybeata, *Shelley, Ibis*, 1880, p. 338, pt.; *Salvad. Ann. Mus. Civic. Genov.* (2) vi. p. 284 (1888).

Adult male. Glossy purplish blue both above and below; quills and tail-feathers blackish. Total length 3·8 inches, culmen 0·35, wing 2·5, tail 1·4, tarsus 0·55.

Adult female. Above dusky brown, the feathers margined with dull whitish; a vertical streak, with another above the eye, and a third below the latter dull whitish; under surface of body dull whitish; throat, breast, and flanks dusky ashy, the former and the vent in some specimens more fulvescent; tail-feathers smoky brown. (*Heugl. N.O.-Afr.* p. 588.)

Hab. Abyssinia and Shoa as far as the Upper White Nile.

| | | |
|--------------|---|-----------------------|
| a. Ad. sk. | White Nile. | F. Galton, Esq. [P.]. |
| b. ♂ ad. sk. | Abyssinia. | Purchased. |
| c. Ad. sk. | Abyssinia. | Shelley Coll. |
| d. ♂ ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Museum. |
| e. ♂ ad. sk. | Lake Sannè, M'tess's country
(<i>Piaggia</i>). | M. A. Bouvier [P.]. |
| f. ♂ ad. sk. | Daimbi, Shoa, Nov. 22 (O.
<i>Antinori</i>). | Shelley Coll. |

4. *Hypochæra funerea*.

? The Black Linnet, *Edwards, Gleanings*, iii. p. 322, pl. 362. fig. 1 (1764).

Fringilla funerea, *De Tarrag. Rev. Zool.* 1847, p. 180.

Tiaris funerea, *Gray, Gen. B.* ii. p. 375 (1849).

Hypochæra ultramarina, *Hartl. Orn. W.-Afr.* p. 149 (1857); *Fischer, J. f. O.* 1885, p. 135; *Reichen. J. f. O.* 1887, p. 70.

Hypochæra purpurascens, *Reichen. J. f. O.* 1883, p. 221; *Fischer, J. f. O.* 1885, p. 135.

Hypochæra nitens, *Hartert, J. f. O.* 1886, p. 584.

Adult male. General colour above dull purplish black with scarcely any gloss; on each side of the lower back a patch of silky white; wing-coverts like the back; bastard-wing, primary-coverts, and quills light brown, the inner secondaries purplish black like the back; tail-feathers light brown, fringed with whitish brown; sides of face and entire under surface of body dull purplish black like the back; axillaries and under wing-coverts creamy buff; quills light brown below, creamy buff along the inner web: "bill white; feet

| | | |
|----------------------|-----------------------------------|----------------------------|
| <i>f.</i> Ad. sk. | Mamboio, E. Africa (Sir J. Kirk). | Shelley Coll. |
| <i>g.</i> ♂ imm. sk. | Sedhion, Senegambia. | M. A. Marche [C.]. |
| <i>h.</i> ♂ ad. sk. | Abeokuta. | F. Nicholson, Esq.
[P.] |

5. *Hypochaera nigerrima*.

Hypochaera nigerrima, Sharpe, P. Z. S. 1871, p. 133; *id.* Cat. Afr. B. p. 64 (1871).

Hypochaera nitens (nec Gm.), Bocage, Orn. Angola, p. 343 (1877-81).

Hypochaera ultramarina, Reichenb. J. f. O. 1887, p. 303.

Adult (type of species). Similar to *H. funerea*, and with the same brown wings, but with the plumage deep purplish black above and below. Total length 4·4 inches, culmen 4·4, wing 2·6, tail 1·4, tarsus 0·55.

Hab. From Angola to the Upper Congo Region and south to the Zambesi.

| | | |
|------------------------|----------------------------------|---------------------------------|
| <i>a.</i> ♂ ad. sk. | Galungo-alto, Angola (Hamilton). | Sharpe Coll. (Type of species.) |
| <i>b.</i> ♂ ad. sk. | Kassongo, Upper Congo. June. | F. Reindorff [C.]. |
| <i>c, d.</i> ♂ ad. sk. | Zambesi (Sir J. Kirk). | Livingstone Expedition. |

28. TÆNIOPYGIA.

Tæniopygia, Reichenb. Singr. p. 26 (1861) Type
T. castanotis.

Range. Australia and the Timor group of islands.

Key to the Species.

- a.* Throat grey, with distinct narrow cross lines of black *castanotis*, p. 311.
- b.* Throat uniform grey, the cross lines obsolete, so that the throat appears practically unbarred *insularis*, p. 312.

1. *Tæniopygia castanotis*.

Bengali moucheté, Vieill. Ois. Chant. pl. 3 (1805).

Amadina castanotis, Gould, P. Z. S. 1835, p. 105; *id.* B. Austr. fol. iii. pl. 87 (1848); Gray, Gen. B. ii. p. 370 (1849); Reichenb. Vög. Neuholl. p. 113 (1850); Gray, Hand-l. B. ii. p. 57, no. 6770 (1860); Diggles, Orn. Austr. pl. 49, fig. 4 (1870).

Steganopleura castanotis, Cab. Mus. Hein. Th. i. p. 172 (1850).

Sporothlastes castanotis, Bp. Consp. i. p. 455 (1850).

Tæniopygia castanotis, Reichenb. Singr. p. 26, Taf. viii. figs. 67-69 (1862); Gould, Handb. B. Austr. i. p. 419 (1865).

Estrela (*Tæniopygia*) *castanotis*, Ramsay, Proc. Linn. Soc. N. S. W. ii. p. 187 (1878); *id.* Tab. List Austr. B. p. 10 (1888).

Estrela castanotis, Ramsay, Proc. Linn. Soc. N. S. W. i. p. 1091 (1887), ii. p. 168 (1888).

Adult. Ashy brown, greyer on the head; wing-coverts like the back; quills dusky, externally ashy brown like the back; rump white, with a black patch on each side; upper tail-coverts black, with a broad white band at the end; tail-feathers dark brown; lores and fore part of cheeks white, skirted by a narrow black line along the line of the bill, and another from below the eye; entire ear-coverts and adjacent region of the sides of the neck light orange-rufous; sides of neck ashy grey; throat and fore neck pearly grey, with narrow blackish cross lines; across the fore neck a distinct bar of black; breast, abdomen, thighs, and under tail-coverts white; sides of body deep tawny or chestnut, spotted with white; under wing-coverts white, washed with chestnut; quills dusky, pale buff along the inner web: "bill reddish orange; feet reddish orange, rather lighter than the bill; iris red" (*J. Gould*). Total length 3.8 inches, culmen 0.4, wing 2.15, tail 1.4, tarsus 0.5.

Adult female. Like the male, but with entirely grey sides to the face; lores and cheeks white, skirted by the same black lines as in the male; throat and chest uniform ashy grey, but with no blackish cross lines; breast and abdomen pale ochreous buff. Total length 3.6 inches, culmen 0.4, wing 2.2, tail 1.3, tarsus 0.55.

Hab. North-western, Northern, and Western Australia, New South Wales, Victoria, South Australia, and Interior Province (*E. P. R.*).

| | | |
|-------------------|--|----------------------------|
| a. ♂ ad. sk. | S. Australia. | J. Gould, Esq. [C.] |
| b. ♂ ad. sk. | River Darling. | Gould Coll. |
| c, d. ♂ ♀ ad. sk. | Queensland (<i>J. T. Cockerell</i>). | Salvin-Godman Coll. |
| e, f. ♂ ♀ ad. sk. | S. Queensland. | Tweeddale Coll. |
| g, h. Ad. sk. | N.W. Australia. | J. R. Elsey, Esq.
[P.] |
| i. ♂ ad. sk. | Fitzroy River, N. W. A. (<i>T. H. Bowyer Bower</i>). | Capt. Bowyer Bower
[P.] |
| k, l. Ad. st. | Australia. | Sir T. Mitchell [P.] |
| m, n. ♂ ♀ ad. sk. | Australia. | Sir T. Mitchell [P.] |
| o. ♂ jun. sk. | Australia. | Forbes Coll. |
| p, q. ♂ ♀ ad. sk. | Australia. | Gould Coll. |

| | | |
|-----------------------------|----------------------------------|---------------------|
| a. ♂ ad. sk. | Timor (<i>A. R. Wallace</i>). | Gould Coll. |
| b, c. ♂ ♀ ad. sk. | E. Timor. | Wallace Coll. |
| | | (Types of species.) |
| d. ♀ ad. sk. | E. Timor. | Wallace Coll. |
| e. ♂ ad. sk. | Semao, Timor. | Wallace Coll. |
| f, g. ♂; h, i. ♀
ad. sk. | Flores. | Wallace Coll. |
| k, l. ♂ ♀ ad. sk. | Flores (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| m. ♀ ad. sk. | Flores (<i>A. R. Wallace</i>). | Gould Coll. |

29. STICTOPTERA.

Stictoptera, *Reichenb. Singr.* p. 31 (1861) ^{Type.} *S. bichenovii*.

Range. Confined to Australia.

Key to the Species.

- a. With the rump white *bichenovii*, p. 313.
b. With the rump black *annulosa*, p. 314.

1. *Stictoptera bichenovii*.

Fringilla bichenovii, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 258 (1827).

Estrela bichenovii, *Gould, B. Austr.* fol. iii. pl. 80 (1848); *Ramsay, Proc. Linn. Soc. N. S. W.* (2) ii. p. 168 (1888).

Amadina bichenovii, *Gray, Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 57, no. 6703 (1870).

Astrilda bichenovii, *Reichenb. Vög. Neuholl.* p. 115 (1850).

Staganopleura bichenovii, *Bp. Consp.* i. p. 456 (1850).

Stictoptera bichenovii, *Reichenb. Singv.* p. 31, Taf. x. figs. 91, 92 (1862); *Gould, Handb. B. Austr.* i. p. 409 (1865).

Estrela (Stictoptera) bichenovii, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 186 (1878); *id. Tab. List Austr. B.* p. 10 (1888).

Adult. General colour above light brown, vermiculated with indistinct transverse bars of dusky brown; upper tail-coverts white, preceded by a black bar across the rump; lesser and median wing-coverts like the back, the latter with coarser blackish cross bars; greater coverts and quills blackish, checkered with white spots; tail-feathers black; head like the back; forehead blackish, extending backwards in a line along the sides of the crown and descending behind the ear-coverts in a narrow collar across the lower throat, enclosing the latter, as well as the sides of face, which with the lores and a narrow eyebrow are white; remainder of under surface of body yellowish white, crossed by a second black band across the breast; chest tinged with ashy, the sides of it light brown like the back, with faint vermiculations; under tail-coverts black; under wing-coverts fulvescent; quills dusky, ashy fulvous along the inner web: "bill beautiful pale blue; irides black, surrounded by a narrow black lash" (*Gould*). Total length 3·8 inches, culmen 0·4, wing 2·15, tail 1·6, tarsus 0·6.

Adult female. Similar to the male, but less brilliant in plumage and the bands on the chest narrower (*Gould*).

Young. More uniform above, without the transverse vermiculations; the black bands on the throat and breast imperfect, the latter merely represented by a few black feathers.

Hab. Australia.

| | | |
|------------------|----------------------|-------------------------------------|
| a. Ad. sk. | Australia. | Linnean Society. (Type of species.) |
| b. ♀ ad. sk. | Australia, Sept. 25. | Sir T. Mitchell [P.]. |
| c. Ad. st. | Australia. | Purchased. |
| d. Ad. sk. | New South Wales. | Forbes Coll. |
| e. Juv. sk. | Liverpool Plains. | Gould Coll. |
| f. Ad. sk. | N. Australia. | Salvin-Godman Coll. |
| g, h, i. Ad. sk. | N.W. Australia. | J. R. Elsey, Esq. [P.]. |

2. *Stictoptera annulosa*.

Amadina annulosa, *Gould*, *P. Z. S.* 1839, p. 143; *Gray*, *Gen. B.* ii. p. 370 (1849); *id.* *Hand-l. B.* ii. p. 37, no. 6792 (1870).

Estrela annulosa, *Gould*, *B. Austr.* fol. iii. pl. 81 (1848); *Digges*, *Orn. Austr.* pl. 48. fig. 3 (1870).

Astrilda annulosa, *Reichenb. Vög. Neuhol.* p. 116 (1850).

Steganopleura annulosa, *Bp. Conspect.* i. p. 456 (1850).

Stictoptera annulosa, *Reichenb. Singv.* p. 31, Taf. x. figs. 89, 90 (1862); *Gould*, *Handb. B. Austr.* i. p. 410 (1865).

Estrilda (Stictoptera) annulosa, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180 (1878); *id.* *Tab. List Austr. B.* p. 10 (1888).

Estrela annulosa, *Ramsay, Proc. Linn. Soc. N. S. W.* (2) i. p. 1090 (1887); *id.* *op. cit.* (2) ii. p. 168 (1888).

Adult male. Similar to *S. bichenovii*, but having the rump black instead of white: "bill and feet lead-colour" (*J. Gould*); "iris red-brown" (*J. R. Elsey*). Total length 4 inches, culmen 0.4, wing 2, tail 1.8, tarsus 0.5.

Adult female. Similar to the male: "bill and feet slate-colour; iris brown" (*J. R. Elsey*). Total length 4 inches, culmen 0.4, wing 1.9, tail 1.6, tarsus 0.55.

Hab. Northern and North-western Australia.

a. Ad. sk. N. Australia. (J. R. Elsey). Salvin-Godman Coll.

Key to the Species.

- a. Belly black or dark iron-grey.
 - a'. Forehead black; belly black.
 - a". Rump greyish white; wing-coverts and secondaries spotted with white *canicapilla*, p. 313.
 - b". Rump grey, only slightly paler than the back; no white spots on secondaries *cinerea*, p. 313.
 - b'. Forehead ochreous; belly black *batistina*, p. 317.
 - c'. Forehead ochreous; belly grey *luciani*, p. 317.
- b. Belly chestnut like the forehead and sides of face; back iron-grey *hicolor*, p. 313.
- c. Belly white.
 - d'. Rump like the back *pinaronta*, p. 313.
 - e'. Rump ochreous, contrasting with back *aryocialis*, p. 313.

Head of *Nigrita canicapilla*.1. *Nigrita canicapilla*.

Æthiops canicapilla, Strickl. *P. Z. S.* 1841, p. 30.

Nigrita canicapilla, Fraser, *P. Z. S.* 1842, p. 145; *id.* *Zool. Typ.* pl. 48 (1849); Gray, *Gen. B.* ii. p. 354 (1849); *Bp. (Ansp.)* i. p. 444 (1850); Hartl. *Orn. W.-Afr.* pp. 130, 273 (1857); *Chas. Proc. Philad. Acad.* 1857, p. 37, 1859, p. 135; Gray, *Hand-l.* B. ii. p. 46, no. 6648 (1870); Sharpe, *P. Z. S.* 1871, p. 133; *id.* & *Bouv. Bull. Soc. Zool. France*, i. p. 48 (1870); *Bocage, Orn. Angola*, p. 322 (1877-81); Shelley, *Ibis*, 1880, p. 300; Reichen. *J. f. O.* 1887, p. 307.

Nigrita cinereicapilla (laps. cal.), Sharpe, *Ibis*, 1880, p. 385; Reichen. *J. f. O.* 1877, p. 28.

Adult male. General colour above dark slaty grey, brighter on the rump, which is pearly grey; wings black, spotted with white at the ends of the feathers, the spots on the greater coverts and inner secondaries being larger; bastard-wing, primary-coverts, and quills entirely black; upper tail-coverts ashy grey, washed with pearly grey; tail-feathers black, with a narrow fringe of ashy grey at the end of the outer ones; crown of head dark slaty grey like the back, the forehead black, as well as the lores and a broad eyebrow, sides of face, ear-coverts, and sides of neck; the black separated from the grey of the upper parts by a narrow line of hoary whitish which skirts the black forehead along the sides of the crown and along the sides of the neck; entire under surface of body black, the sides of body and flanks dark slaty grey; thighs and under tail-coverts black; under wing-coverts and axillaries white, the edge of the wing black; quills below dusky blackish, ashy along the inner edge. Total length 5·4 inches, culmen 0·5, wing 2·75, tail 1·9, tarsus 0·7.

Young. Differs from the adult in being much browner, the rump only a little greyer than the back; scarcely any white spots on the wing-coverts and inner secondaries; forehead like the back; under surface of body dull slaty grey, interspersed with a few black feathers of the approaching adult plumage.

Hab. West Africa from Dahomey to the Congo.

| | | |
|------------------------|---|------------------------------------|
| a. Ad. sk. | Abeokuta.* | F. Nicholson, Esq.
[P.] |
| b, c. Ad. sk. | Fernando Po. | L. Fraser [C.] |
| d. Ad. sk. | Fernando Po (<i>L. Fraser</i>). | (Types of species.)
Eyton Coll. |
| e, f. Ad.; g. Juv. sk. | Gaboon. | Sharpe Coll. |
| h. Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Tweeddale Coll. |
| i. Ad. sk. | Muni River, Gaboon. | P. Du Chaillu [C.] |
| k, l. Ad. et imm. sk. | Landana, Congo River (<i>L. Petit</i>). | Shelley Coll. |
| m. Ad. sk. | Landana (<i>Dr. Lucan</i>). | Shelley Coll. |
| n. ♂ ad. sk. | Chinchonxo, March 2 (<i>Dr. Lucan</i>). | Shelley Coll. |
| o. Ad. sk. | [Angola (<i>Hamilton</i>).] | Sharpe Coll. |

2. *Nigrita emilis*.

Nigrita canicapilla, pt., *Hartl. Orn. W.-Afr.* p. 180.

Nigrita emilis, *Sharpe, Ibis*, 1869, p. 384, pl. 11. fig. 2; *id. Ibis*, 1870, p. 473; *Gray, Hand-l. B.* ii. p. 47, no. 6651 (1870); *Sharpe, Cat. Afr. B.* p. 61 (1871); *Shelley & Buckley, Ibis*, 1872, p. 289; *Reichen. J. f. O.* 1875, p. 41; *Shelley, Ibis*, 1886, p. 307; *Büttik. Notes Leyden Mus.* x. p. 90 (1888).

Nigrita canicapilla (*nec Strickl.*), *Büttik. Notes Leyden Mus.* viii. p. 261 (1886).

Adult. Similar to *N. canicapilla*, but smaller, with the rump like the back or only a little paler grey; no white spots on the wings, the coverts and inner secondaries faintly fringed with ashy grey at the ends: "bill black; feet smoky brown; iris yellowish white" (*J. Stampfli*); "iris cinnabar-red" (*A. Reichenow*). Total length 4.4 inches, culmen 0.45, wing 2.45, tail 1.6, tarsus 0.55.

| | | |
|---------------|---|---------------|
| m. Juv. sk. | Denkera (Johann). | Sharpe Coll. |
| n, o. Ad. sk. | Abouri. Agouapim. Feb. 2 (T. E. Buckley). | Shelley Coll. |
| p. Juv. sk. | River Volta (H. T. Fisher). | Sharpe Coll. |
| q. Ad. sk. | [Gaboon].* | Sharpe Coll. |

3. *Nigrita luteifrons*.

Nigrita luteifrons, *Verr. Rec. et Mus. de Zool.* 1831, p. 420; *Horti. Orn. W.-Afr.* p. 131 (1837); *Cass. Proc. Acad. Sci.* 1844, p. 135; *Gray, Hand-l. B.* ii. p. 47, no. 930 (1870); *Sharpe, P. Z. S.* 1871, p. 612; *Shelley, Ibis*, 1883, p. 303.

Adult. General colour above light ashy grey, slightly paler towards the rump: wings and tail black, slightly washed with ashy on the wing-coverts: head lighter grey than the back, the forehead ochreous buff, shading into pearly grey: lores, feathers round the eyes, ear-coverts, cheeks, and entire under surface of body black, as well as the thighs and under tail-coverts: under wing-coverts and axillaries white, the edge of the wing grey: quills dusky below, whitish along the inner web. Total length 4·3 inches, culmen 0·35, wing 2·25, tail 1·55, tarsus 0·6.

Young. Entirely grey above and below, with the forehead and sides of face also grey: quills and tail black: under surface of body a little more dingy than the upper surface.

Hab. West Africa from the Cameroons to Gaboon.

| | | |
|-------------|------------------------------------|------------------------|
| a. Ad. sk. | Cameroons Mountains (A. Crossley). | Sharpe Coll. |
| b. Juv. sk. | Gaboon (<i>Du Chaillu</i>). | Sharpe Coll. |
| c. Ad. sk. | Gaboon. | P. B. Du Chaillu [C.]. |
| d. Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Forbes Coll. |
| e. Ad. sk. | Gaboon. | Shelley Coll. |

4. *Nigrita lucieni*.

Nigrita luteifrons (*nec Verr.*), *Sharpe, Cat. Afr. B.* p. 61 (1871).

Nigrita lucieni, *Sharpe & Bouvier, Bull. Soc. Zool. France*, iii. p. 76 (1878); *Bocage, Orn. Angola*, p. 557 (1881); *Shelley, Ibis*, 1883, p. 306.

Adult (type of species). Very similar to *N. luteifrons*, but differing in its grey under surface. It has the same ochreous buff forehead, but has only the lores and feathers round the eye black. Total length 4·3 inches, culmen 0·35, wing 2·3, tail 1·5, tarsus 0·6.

Hab. West Africa, from the Congo to Gaboon.

| | | |
|------------|---|-----------------------------------|
| a. Ad. sk. | Gaboon (<i>Walker</i>). | Sharpe Coll. |
| b. Ad. sk. | Ungomongo, Interior of the Congo State (<i>L. Petit</i>). | M. A. Bouvier. (Type of species.) |

* I quite agree with Captain Shelley (*Ibis*, 1883, p. 303) that this specimen is probably wrongly ticketed by M. Verreaux. The skin has every appearance of the usual Gold Coast "make."

5. *Nigrita bicolor*.

Pytelia bicolor, *Hartl. Syst. Verz. Bremen*, 1844, p. 76.

Nigrita bicolor, *Scl. Contr. Orn.* 1852, p. 83, cum tab.; *Cass. Proc. Philad. Acad.* 1859, p. 135; *Hartl. J. f. O.* 1861, p. 176; *Keulem. N. T. D.* iii. p. 391 (1866); *Sharpe, Ibis*, 1869, p. 191; *Gray, Hand-l. B.* ii. p. 47, no. 6653 (1870); *Sharpe, Cat. Afr. B.* p. 61 (1871); *Shelley & Buckley, Ibis*, 1872, p. 254; *Sharpe & Bouvier, Bull. Soc. Zool. France*, iii. p. 75 (1878); *Bocage, Orn. Angola*, p. 556 (1877-81); *Büttik. Notes Leyden Mus.* vii. p. 195 (1885), viii. p. 261 (1886); *Shelley, Ibis*, 1886, p. 307.

Adult. General colour above dull slate-colour; wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, edged with the same slate-colour as the back; tail-feathers blackish, the outer ones pale ashy at the end; crown of head like the back, the base of forehead and eyebrow, ear-coverts, and entire under surface of body deep vinous-chestnut; thighs ashy grey; under wing-coverts and axillaries white with a faint ruddy tinge; quills dusky below, ashy along the inner edge: "bill black; feet sooty brown; iris blood-red" (*Büttikofer*). Total length 3.9 inches, culmen 0.4, wing 2.2, tail 1.55, tarsus 0.55.

Young. Distinguished by its pale horn-coloured lower mandible and by the colour of the face and underparts. The upper surface is of a paler slaty grey than the adults: the sides of the face and throat are also light ashy grey, and there is no chestnut on the forehead or face; the rest of the under surface is a pale vinous-red washed with ashy.

Hab. West Africa from Fantee to the Congo.

| | | |
|----------------------|---|----------------|
| a. Ad. sk. | Ashantee. | J. Gould, Esq. |
| b. Ad. sk. | Fantee. | Sharpe Coll. |
| c, d, e, f. Imm. sk. | Fantee (<i>Aubinn</i>). | Sharpe Coll. |
| g. Imm. sk. | Fantee (<i>Aubinn</i>). | Shelley Coll. |
| h. Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| i. Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| k. Ad. sk. | Abrobonko, Fantee, Jan. 30 (<i>G. E. S.</i>). | Shelley Coll. |
| l. Ad. sk. | Denkera (<i>H. T. Ussher</i>). | Shelley Coll. |
| m. Ad. sk. | Abouri, Aguapim, Feb. 22 (<i>G. E. S.</i>). | Shelley Coll. |
| n. Ad. sk. | Cameroons, Jan. 7, 1871, <i>A. Crossley</i> . | Sharpe Coll. |

Adult (type of species). General colour above light ochreous brown; scapulars like the back; rump black; upper tail-coverts glossy purplish black; lesser wing-coverts glossy purplish black; median and greater coverts dark chocolate-brown; bastard-wing, primary-coverts, and quills black, the inner secondaries chocolate-brown; tail-feathers black, glossed with purple on the edges; crown of head and nape glossy purplish black, as well as the lores, sides of face, feathers round eye, and ear-coverts; cheeks, throat, and under surface of body pure white; thighs, under tail-coverts, under wing-coverts, and axillaries also white; quills below brown, light ashy along the inner edge. Total length 4 inches, culmen 0·4, wing 2·15, tail 1·55, tarsus 0·55.

Hab. From Fernando Po and Gaboon to the Congo.

| | | |
|--------------|---|--------------------------------------|
| a. Ad. sk. | Fernando Po. | L. Fraser [C.]
(Type of species.) |
| b. ♂ ad. sk. | Chinchonxo, Congo, April 2
(<i>Dr. Lucan</i>). | Shelley Coll. |
| c. Ad. sk. | Landana. | L. Petit [C.] |

7. *Nigrita uropygialis*.

Nigrita uropygialis. *Sharpe, Ibis*, 1869, p. 384, pl. 11. fig. 1; *Gray, Hand-l. B.* ii. p. 47, no. 6354 (1870); *id. Cat. Afr. B.* p. 61 (1871); *Shelley, Ibis*, 1886, p. 306.

Adult (type of species). Similar to *N. pinarionota*, but differing in the pale ochreous-buff band across the lower back and rump. Total length 3·9 inches, culmen 0·4, wing 2, tail 1·9, tarsus 0·55.

Young. Differs from the adult in being duller in colour, the head sooty black without any gloss, and the white underparts washed with ochreous buff.

Hab. Confined to the Gold Coast.

| | | |
|---------------|----------------------------------|------------------------------------|
| a. Ad. sk. | Fantee. | Sharpe Coll. |
| b. Ad. sk. | Fantee. | Sharpe Coll. (Type
of species.) |
| c. Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| d. Ad. sk. | Fantee (<i>Aubinn</i>). | Sharpe Coll. |
| e. Ad. sk. | Fantee (<i>Aubinn</i>). | Shelley Coll. |
| f. Juv. sk. | Fantee. | A. Swanzy, Esq. [P.] |
| g, h. Ad. sk. | Denkera (<i>H. T. Ussher</i>). | Shelley Coll. |

31. SPORÆGINTHUS.

| | |
|---|----------------------|
| | Type. |
| Sporæginthus, <i>Cab. Mus. Hein.</i> Th. i. p. 170 (1850) | <i>S. amandava</i> . |
| Amandava, <i>Reichenb. Singv.</i> p. 15 (1861) | <i>S. amandava</i> . |
| Melpoda, <i>Reichenb. t. c.</i> p. 26 (1861) | <i>S. melpoda</i> . |

Range. Indian Peninsula; Burmese countries. Malayan Peninsula; Java; Flores; Timor.

Key to the Species.

- a. Throat crimson, with white spots on the chest and sides.
 a'. Belly black *amandava*, p. 320.
 b'. Belly orange-yellow *flavidiventris*, p. 323.
 b. Throat yellow; belly orange or yellow, with ashy bars on the sides; a crimson eyebrow . . *subflava*, p. 324.
 c. Throat pearly grey; lores, eyebrow, ear-coverts, and cheeks orange *melpoda*, p. 325.

1. *Sporæginthus amandava*.

The Amaduvads, cock and hen, *Albin, Nat. Hist. B.* iii. p. 72, pl. 77 (1740).

The Amadavad, *Edwards, Gleanings*, iii. p. 301, pl. 355 (1774).

Le Bengali piqueté, *Briss. Orn.* iii. p. 206, pl. x. fig. 4 (1760);
Daubent. Pl. Ent. iv. pl. 115. fig. 3; *Montb. Hist. Nat. Ois.* iv. p. 96 (1778).

Le Bengali brun, *Briss. t. c.* p. 205, pl. x. fig. 3; *Daubent. t. c.* pl. 115. fig. 2.

Fringilla amandava, *Linn. Syst. Nat.* i. p. 319 (1766); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 175 (1817).

Amadavado Finch, *Lath. Gen. Syn.* ii. pt. i. p. 311 (1783).

Amandava, *Vieill. Ois. Chant.* pla. 1, 2 (1806, *bad*).

Fringilla punicea, *Horsf. Trans. Linn. Soc.* xiii. p. 160 (1821).

Linaria amandava, *Sykes, P. Z. S.* 1832, p. 93.

Estrela amandava, *Jerd. Madr. Journ.* xi. p. 26 (1840); *Blyth, J. A. S. Beng.* xiii. p. 949 (1844), xvi. p. 407 (1847); *Gray, Gen. B.* ii. p. 368 (1849); *Blyth, Cat. B. Mus. As. Soc.* p. 118 (1849); *Bp. Consp.* i. p. 459 (1850); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 502 (1856); *Jerd. B. Ind.* ii. p. 359 (1863); *Schomb. Ibis*, 1864, p. 262; *Beavan, Ibis*, 1867, p. 331, 1868, p. 173; *Gray, Hand-l. B.* ii. p. 51, no. 6710 (1870); *Holdsw. P. Z. S.* 1872, p. 464; *Hume, Str. F.* 1873, p. 209; *id. Nests and Eggs Ind. B.* p. 454 (1873); *Ball, Str. F.* 1874, p. 421; *Hume, t. c.* p. 258; *Oates, Str. F.* 1875, p. 342; *Butler, t. c.* p. 496; *Morgan, Ibis*, 1875, p. 322; *Fairb. Str. F.* 1876, p. 261; *Hume, Str. F.* 1877, p. 30; *Ball, Str. F.* 1878, p. 222; *Cripps, t. c.* p. 294; *Legge, B. Ceylon*, p. 622, note (1879); *Hume, Str. F.* 1879, p. 107; *Butler, Cat. B. Mus. As. Soc.* p. 43 (1879); *id. Cat. B. Mus. As. Soc.* p. 43 (1879).

a few tiny white spots, rather larger on the scapulars, lower back, rump, and upper tail-coverts, which are brighter crimson, the white spots being tinged with rosy: wings dark brown, the coverts and inner secondaries with large terminal spots of white: bastard-wing, primary-coverts, and quills uniform dusky brown: tail-feathers black, the outer feathers with white spots at one end: head, sides of face, and under surface of body bright crimson: lores black; below the eye some tiny white plumbeous: throat somewhat mottled with black lines to the feathers, as also the feathers of the lower breast: abdomen and under tail-coverts black: thighs black, barred with whitish: on the chest as well as the sides of the fore neck and sides of body some rounded spots of white, larger on the sides of the body and the flanks: under wing-coverts white: quills dusky below, ashy along the inner web: "bill red, dusky at base of culmen: legs and feet brownish flesh-colour: iris orange-red" (*E. A. Butler*). Total length 4.5 inches, culmen 0.4, wing 1.55, tail 1.5, tarsus 0.5.

Adult male in winter plumage. Dark chocolate-brown, with the crimson white-spotted rump and upper tail-coverts as in the full plumage: wings dark brown, with round white spots, also on the inner secondaries: these easily distinguish winter-plumaged adults from the brown-plumaged young: sides of face dark brown: chin whitish: throat and chest ashy brown, as also the sides of the body, the flanks having a few white spots: breast and abdomen ochreous buff, with a little scarlet on the former: under tail-coverts white.

Adult female. Brown: wings darker brown, with small white spots on the wing-coverts and inner secondaries: lower rump and upper tail-coverts dull crimson, with whitish edges and spots: head like the male: lores, eyelids, and feathers behind the eye black: a whitish streak below the eye: sides of face, cheeks, and ear-coverts ashy brown: throat ochreous white, fading into ashy brown on the lower throat and chest, washed with ochreous buff: breast and abdomen saffron-buff, a little tinged with orange on the former: sides of body, flanks, and thighs ashy brown: under tail-coverts like abdomen: under wing-coverts white, washed with saffron-yellow: "soft parts as in male" (*E. A. Butler*). Total length 4.3 inches, culmen 0.4, wing 1.9, tail 1.5, tarsus 0.55.

Young. Like the old female, but rather more olive-brown: no white spots on the wing-coverts, which are distinctly tipped with fulvous: quills dusky brown, the inner secondaries edged externally with fulvous: tail-feathers blackish, the outer feathers rather broadly edged with fulvous-brown: lores ashy whitish: sides of face brown: under surface of body ochreous buff, paler on the under tail-coverts.

Considerable variation in the number and size of the white spots is seen in a series of specimens. I thought at first that the Javan and Malaccan specimens were rather more minutely spotted, but I find specimens from India which match them exactly, and I have come to the conclusion that *E. punicea* cannot be separated from *E. amandava*.

Hab. Indian Peninsula to Assam, Cochin China, and Siam; Malayan Peninsula (probably local); Java.

| | | |
|--|--|-----------------|
| <i>a, b.</i> ♂ ad. sk. | Kusmore, Sindh, Dec. (<i>A. O. H.</i>). | Tweeddale Coll. |
| <i>c, d.</i> Ad. sk. | Sindh (<i>Dr. H. Gould</i>). | India Museum. |
| <i>e.</i> Ad. sk. | Mooltan (<i>Capt. Tweedie</i>). | Gould Coll. |
| <i>f, g.</i> ♂ ♀ ad. sk. | Deesa, Oct. 25 (<i>E. A. Butler</i>). | Hume Coll. |
| <i>h-m.</i> Ad. sk. | Umbala. | Hume Coll. |
| <i>n.</i> Ad. sk. | Umbala (<i>S. Pinwill</i>). | Tweeddale Coll. |
| <i>o, p.</i> Ad. et juv. sk. | Etawah. | Hume Coll. |
| <i>q.</i> Ad. sk. | Dehra Dhoon, Oct. 24. | Hume Coll. |
| <i>r.</i> Ad. sk. | Kumaon. | Hume Coll. |
| <i>s, t.</i> Ad. sk. | N.W. Provinces. | Pinwill Coll. |
| <i>u, v, w.</i> ♂ ad.; <i>x,</i>
<i>y.</i> ♂ juv. sk. | Futtehgurh, Jan. 2 (<i>A. Anderson</i>). | Seeborn Coll. |
| <i>z.</i> Ad. sk. | Oudh. | Tweeddale Coll. |
| <i>a</i> ¹ . Ad. sk. | Behar. | Hodgson Coll. |
| <i>b</i> ¹ - <i>c</i> ¹ . Ad. sk. | Nepal. | Hodgson Coll. |
| <i>f</i> ¹ . Ad. sk. | Nepal (<i>Hodgson</i>). | India Museum. |
| <i>g</i> ¹ . Juv. sk. | Sikhim. | Hume Coll. |
| <i>h</i> ¹ . ♀ juv. sk. | Sikhim. | Seeborn Coll. |
| <i>k</i> ¹ - <i>n</i> ¹ . Ad.; <i>o</i> ¹ .
Juv. sk. | Buxa Doars, Jan. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>p</i> ¹ - <i>u</i> ¹ . ♂ ad.; <i>v</i> ¹ ,
<i>w</i> ¹ , <i>x</i> ¹ . ♀ ad.;
<i>y</i> ¹ - <i>b</i> ² . Juv. sk. | Bhotan Doars, Jan., Feb., April
(<i>L. Mandelli</i>). | Hume Coll. |
| <i>c</i> ² , <i>d</i> ² . Ad. sk. | Kamroop, Assam, Dec. (<i>A. W.</i>
<i>Chennell</i>). | Tweeddale Coll. |
| <i>e</i> ² . ♂ juv. sk. | Cachar, Jan. 27 (<i>A. O. H.</i>). | Hume Coll. |
| <i>f</i> ² , <i>g</i> ² , <i>h</i> ² . Ad.;
<i>i</i> ² , <i>k</i> ² . Juv. sk. | Cachar (<i>J. Inglis</i>). | Hume Coll. |
| <i>p</i> , <i>m</i> ² , <i>n</i> ² . ♂ ♀
imm. sk. | Sylhet, Jan. 24 (<i>A. O. H.</i>). | Hume Coll. |
| <i>o</i> ² . Ad. sk. | Dacca. | Hume Coll. |
| <i>p</i> ² . ♂ imm. sk. | Cumilla, Timmerah. | Hume Coll. |

| | | |
|--|--|---|
| <i>k</i> ¹ , <i>l</i> ¹ . ♂ ad. : <i>m</i> ¹ .
<i>n</i> ¹ . ♀ ad. sk. | Coonoor, Sept., Oct. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>o</i> ¹ , <i>p</i> ¹ . ♂ : <i>q</i> ¹ . ♀
ad. sk. | Coonoor, Jan. 24, April (<i>W. Davison</i>). | Hume Coll. |
| <i>r</i> ¹ . ♂ ad. sk. | Coonoor, Oct. 13. | W. Davison,
Esq. P. J. |
| <i>s</i> ¹ . ♂ juv. sk. | Siam. | Seeböhm Coll. |
| <i>t</i> ¹ , <i>u</i> ¹ . ♂ ad. sk. | Saigon, Cochin China, Jan. (<i>S. Pinacill</i>). | Tweeddale Coll. |
| <i>v</i> ¹ , <i>w</i> ¹ , <i>x</i> ¹ . ♂ ; <i>y</i> ¹ .
<i>z</i> ¹ . ♀ ad. sk. | Singapore Island, Oct. (<i>W. D.</i>). | Hume Coll. |
| <i>a</i> ¹ , <i>b</i> ¹ , <i>c</i> ¹ . Ad. sk. | Java (<i>Dr. Horsfield</i>). | India Museum.
(Types of <i>E. punicea</i> .) |

2. *Sporæginthus flavidiventris*.

Estrela flavidiventris, *Wall. P. Z. S.* 1863, pp. 486, 495; *Gray, Hand-l. B.* ii. p. 51, no. 6712 (1870); *Wardlaw Ramsay, Ibis*, 1877, p. 461; *Anderson, Rep. Zool. Exped. Yun-nan, Aves*, p. 600 (1878); *Hume & Davison, Str. F.* vi. p. 406 (1878); *Hume, Str. F.* 1879, p. 107; *id. Str. F.* 1880, ix. p. 118.

Estrela amandava (*nec L.*), *Oates, Str. F.* 1875, p. 342.

Estrela burmanica, *Hume, Str. F.* 1876, p. 484; *Armstr. t. c.* p. 336; *Oates, Str. F.* 1877, p. 163.

Astrilda amandava (*nec L.*), *Blyth, B. Burm.* p. 93 (1875).

Estrilda punicea (*nec Horsf.*), *Oates, B. Br. Burm.* i. p. 371 (1883); *Reid, Cat. Lucknow Mus.* p. 130 (1887).

Adult male. Very similar to *S. amandava*, but without the black belly, this part being bright ochreous yellow: "bill deep red, the posterior half of culmen black; legs flesh-colour; claws horny; iris crimson; eyelids purpurascant; inside of mouth salmon-colour" (*E. W. Oates*). Total length 3·7 inches, culmen 0·35, wing 2·15, tail 1·2, tarsus 0·45.

Adult female. Differs from the male exactly as does the female of *E. amandava*. Total length 4 inches, culmen 0·4, wing 1·75, tail 1·3, tarsus 0·5.

Hab. Burma and Tenasserim; islands of Flores and Timor.

| | | |
|--|---|---|
| <i>a</i> , <i>b</i> . Ad. sk. | Sanda Valley, May, July. | Dr. J. Anderson
[C.] |
| <i>c</i> , <i>d</i> . ♂ ; <i>e</i> . ♀ ad.
sk. | Tsitkau, Upper Burmah, Feb. 7. | Dr. J. Anderson
[C.] |
| <i>f</i> - <i>s</i> . ♂ ♀ ad. et
juv. sk. | Pegu, March-Dec. (<i>E. W. O.</i>). | Oates Coll. |
| <i>t</i> . ♂ ad. sk. | Pegu, July (<i>E. W. O.</i>). | Tweeddale Coll. |
| <i>u</i> , <i>v</i> , <i>w</i> . ♂ ; <i>x</i> . ♀
ad. sk. | Pegu, May, July, Aug. (<i>E. W. O.</i>). | Forbes Coll. |
| <i>y</i> . ♂ ad. sk. | Elephant Point, Jan. 1 (<i>J. Armstrong</i>). | Hume Coll.
(Type of <i>E. burmanica</i> .) |
| <i>z</i> . ♂ ad. sk. | Sittang Valley, Dec. 28 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>a'</i> , <i>b'</i> , <i>c'</i> . ♂ ad. sk. | Thatone, Feb., Nov. (<i>W. Davison</i>). | Hume Coll. |
| <i>d'</i> , <i>e'</i> , <i>f'</i> . ♂ ; <i>g'</i> ,
<i>h'</i> . ♀ ad. sk. | Flores. | Wallace Coll. |

| | | |
|----------------------------|------------------------------------|------------------------------------|
| ♂, ♀ ad. sk. | Flores (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| ♀ ad. sk. | Flores (<i>A. R. Wallace</i>). | Forbes Coll. |
| m', n' ♂; o', p' ♀ ad. sk. | E. Timor. | Wallace Coll. |
| g' ♂ ad. sk. | E. Timor (<i>A. R. Wallace</i>). | (Types of species.)
Gould Coll. |

3. *Sporæginthus subflavus*.

- Fringilla subflava*, Vieill. *N. Dict. d'Hist. Nat.* xxx. p. 575 (1819).
Fringilla sanguinolenta, Temm. *Pl. Col.* iii. pl. 221. fig. 2 (1823).
Estrela sanguinolenta, Swains. *B. W. Afr.* i. p. 190 (1837); Licht. *Nomencl. Av.* p. 48 (1854); Gurney, *Ibis*, 1864, p. 252.
Amadina sanguinolenta, Des Murs, in *Lefebvre's Voy. Abyss.* p. 173 (1845); Gray & Mitchell, *Gen. B.* ii. pl. xc. figs. 2, 3 (1849); Heugl. *J. f. O.* 1862, p. 28.
Estrela subflava, Gray, *Gen. B.* ii. p. 309 (1849); Bp. *Consp. Av.* i. p. 460 (1850); Hartl. *Orn. W.-Afr.* p. 144 (1857); Layard, *B. S. Afr.* p. 200 (1867); Gurney, *Ibis*, 1868, p. 162; Gray, *Hand-l. B.* ii. p. 51, no. 6713 (1870); Reichen. *J. f. O.* 1875, p. 41; Bocage, *Orn. Angola*, p. 300 (1881); Forbes, *Ibis*, 1883, p. 529; Shelley, *t. c.* p. 555, Sharpe, ed. *Layard's B. S. Afr.* pp. 469, 849 (1884); Fischer & Reichen. *J. f. O.* 1884, p. 173; Shelley, *Ibis*, 1886, p. 334; id. *P. Z. S.* 1888, p. 32.
Sporæginthus subflavus, Cab. *Mus. Hein.* i. p. 170 (1850); Heugl. *J. f. O.* 1863, p. 19; id. *Orn. N.O.-Afr.*, App. p. cxxxvii (1870).
Pytelia mitchelli, Reichenb. *Sing.* p. 24, Taf. xviii. figs. 161, 162 (1861).
Sporæginthus miniatus, Heugl. *J. f. O.* 1863, p. 167.
Estrela subflava orientalis, Heugl. *J. f. O.* 1868, p. 11.
Habropyga subflava, Heugl. *Orn. N.O.-Afr.* p. 609 (1870); Sharpe, *Cat. Afr. B.* p. 66 (1871); Reichen. *J. f. O.* 1887, p. 71.
Pytelia subflava, Russ, *J. f. O.* 1869, p. 78.
Zonæginthus subflavus, Reichen. *Mitth. Afrik. Ges.* i. p. 6 (1880).
Ortygospiza polyzona, Butler, Feilden, & Reid, *Zoologist*, 1882, p. 300.
Pytelia sanguinolenta, Böhm, *J. f. O.* 1885, p. 69.

Adult male. General colour above olive-brown, rump and upper tail-coverts crimson; wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky, externally edged with olive-brown; tail-feathers dusky, edged with olive-brown, the centre ones entirely of the latter colour, the outer ones fringed with white at

eyebrow and sides of face, the latter being dark ashy olive-brown like the head; under surface of body yellow, not scarlet, except on the under tail-coverts. Total length 3·5 inches, culmen 0·35, wing 1·7, tail 1·15, tarsus 0·4.

Young males are not so scarlet underneath as the old birds, but are yellow like the females.

Hab. The greater part of the Ethiopian Region, but apparently locally distributed.

| | | |
|---|---|-------------------------|
| <i>a.</i> Ad. st. | Natal. | Purchased. |
| <i>b.</i> Ad. sk. | Umlazi River, Natal (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>c.</i> Ad. sk. | Natal (<i>T. L. Ayres</i>). | Seeböhm Coll. |
| <i>d, e.</i> ♂; <i>f.</i> ♀ ad. sk. | Newcastle, Sept., Feb. (<i>Capt. Savile Reid</i>). | Shelley Coll. |
| <i>g.</i> ♂; <i>h, i.</i> ♀ ad.;
<i>k, l.</i> Juv. sk. | Potchefstroom, Transvaal, July, Aug., Oct. (<i>T. Ayres</i>). | J. H. Gurney, Esq. [P.] |
| <i>m.</i> Ad. sk. | Potchefstroom, Oct. 23 (<i>T. Ayres</i>). | Forbes Coll. |
| <i>n-s.</i> ♂ ad. et juv.;
<i>t, u, v.</i> ♀ ad. sk. | Lado, Equatorial Africa, March. | Emin Pasha [P.] |
| <i>w.</i> Ad. sk. | Shonga, R. Niger, Dec. 1 (<i>W. A. F.</i>). | Forbes Coll. |
| <i>x.</i> Ad. sk. | S. Louis, Senegal (<i>L. Glaize</i>). | Tweeddale Coll. |

4. *Sporæginthus melpodus*.

Bengali à joues Oranges, *Vieill. Ois. Chant.* p. 26, pl. 7 (1805).

Fringilla melpoda, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 177 (1817).

Estrela melpoda, *Gray, Gen. B.* ii. p. 369 (1849); *Bp. Consp. Av.* i. p. 460 (1850); *Hartl. Orn. W.-Afr.* p. 141 (1857); *Cass. Proc. Philad. Acad.* 1859, p. 138; *Heine, J. f. O.* 1860, p. 141; *Hartl. J. f. O.* 1861, p. 258; *Sharpe, Ibis*, 1870, p. 482; *Shelley & Buckley, Ibis*, 1872, p. 290; *Reichen. J. f. O.* 1875, p. 41; *Sharpe & Bouvier, Bull. Soc. Zool. France*, iii. p. 76 (1878); *Oustalet, Nouv. Arch. Mus.* (2) ii. *Bull.* p. 112 (1879); *Bocage, Orn. Angola*, p. 358 (1881); *Forbes, Ibis*, 1883, p. 510; *Shelley, Ibis*, 1883, p. 565; *Büttik. Notes Leyden Mus.* viii. p. 260 (1886); *Shelley, Ibis*, 1886, p. 332.

Fringilla lippa, *Licht. Mus. Berol., teste Bp. Consp.* p. 468 (1850).

Habropyga melpoda, *Cab. Mus. Hein.* i. p. 169, note (1850); *Sharpe, Cat. Afr. B.* p. 66 (1871); *Cab. J. f. O.* 1885, p. 464; *Reichen. J. f. O.* 1887, p. 301.

Melpoda lippa, *Reichenb. Singv.* p. 26, pl. vii. figs. 62-64 (1861).

Estrilda melpoda, *Gray, Hand-l. B.* ii, p. 51, no. 6702 (1870).

Adult male. General colour above light chocolate-brown; wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, edged with chocolate-brown; upper tail-coverts dark crimson; tail-feathers black, the outer feathers edged with ashy near the ends of the outer web; crown of head slaty grey, contrasting with the back; lores, feathers round the eye, and ear-coverts scarlet; eyelid whitish; feathers at base of mandible,

cheeks, and sides of neck ashy grey; throat and fore neck light pearly grey; breast and abdomen whitish, with a slight tinge of red on the latter; sides of body and flanks ashy grey; thighs and under tail-coverts also ashy grey; under wing-coverts ashy, the lower ones pale isabelline; axillaries ashy; quills below dusky, ashy along the inner edge: "bill scarlet; legs dark horny; iris light brown" (*W. A. Forbes*). Total length 3·8 inches, culmen 0·35, wing 1·85, tail 1·6, tarsus 0·5.

Hab. West Africa, from Senegambia to Angola.

| | | |
|-----------------------|--|-----------------|
| a. Ad. st. | West Africa. | |
| b. Ad. sk. | Senegal (<i>L. Laglaize</i>). | Tweeddale Coll. |
| c. Ad. sk. | River Gambia (<i>A. Marché</i>). | Shelley Coll. |
| d. Ad. sk. | Fantee (<i>A. Swanzy</i>). | Sharpe Coll. |
| e. Ad. sk. | Fantee. | Gould Coll. |
| f. Ad. sk. | Abrobonko, Fantee, Jan. 80
(<i>G. E. S.</i>). | Shelley Coll. |
| g. ♂ ad. sk. | Shonga, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| h. Ad. sk. | Lokoja, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| i. Ad. sk. | Gaboon. | Purchased. |
| k. Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Forbes Coll. |
| l. ♂; m, n. ♀ ad. sk. | Landana, Congo (<i>L. Petit</i>). | Shelley Coll. |

32. MUNIA.

Type.

| | |
|--|--------------------------|
| Lonchura, <i>Sykes</i> , <i>P. Z. S.</i> 1832, p. 94 (<i>nec Schön.</i> 1801) | <i>M. punctulata</i> . |
| Munia, <i>Hodgs. Asiat. Researches</i> , xix. p. 153 (1836) .. | <i>M. atricapilla</i> . |
| Dermophrys, <i>Hodgs. J. A. & Beng.</i> x. p. 28 (1841) .. | <i>M. atricapilla</i> . |
| Donacola, <i>Gould, B. Austr.</i> iii. pl. 94 (1842) | <i>M. castaneiceps</i> . |
| Oxyerca, <i>Gray, List Gen. B.</i> , App. p. 10 (1842) .. | <i>M. punctulata</i> . |
| Padda, <i>Reichenb. Syst. Nat.</i> Taf. lxxvi. fig. 6 (1850) .. | <i>M. oryzivora</i> . |
| Maia, <i>Reichenb. Syst. Nat.</i> Taf. lxxvii. fig. 7 (1850) .. | <i>M. maja</i> . |
| Oryzornis, <i>Cab. Mus. Hein.</i> Th. i. p. 174 (1850) | <i>M. oryzivora</i> . |
| Diachmura, <i>Reichenb. Singu.</i> p. 48 (1861) | <i>M. quanticolor</i> . |

Key to the Species.

- a. Legs pale, yellow or white; upper tail-coverts and tail black; head black, with a large white patch on the ear-coverts.
 - a'. Abdomen rosy pink; breast and fore neck light grey *oryzivora*, p. 328.
 - b'. Abdomen white; breast and fore neck drab-brown *fuscata*, p. 330.
- b. Legs dark; upper tail-coverts and centre tail-feathers maroon or golden yellow.
 - c'. Under tail-coverts black.
 - a''. Upper tail-coverts chestnut or deep maroon.
 - a'''. Sides of body white like breast; lower breast and abdomen black *malacca*, p. 330.
 - b'''. Sides of body chestnut or brown.
 - a⁴. Head white.
 - a⁵. Throat and fore neck black, joined to black of breast and throat *ferruginosa*, p. 332.
 - b⁵. Throat white or light brown; chest brown; abdomen black *maja*, p. 332.
 - b⁴. Head black or brown.
 - c⁵. Head black *atricapilla*, p. 334.
jagori, p. 337.
 - d⁵. Head brown *formosana*, p. 338.
brunneiceps, p. 338.
 - b''. Upper tail-coverts golden or straw-yellow or deep orange.
 - c'''. Throat deep chestnut.
 - c⁴. Upper tail-coverts and tail golden straw-colour *quinticolor*, p. 339.
 - d⁴. Upper tail-coverts and tail golden orange *wallacii*, p. 339.
 - d'''. Throat black.
 - e⁴. Centre of abdomen white.
 - e⁵. Chest fawn-colour, followed by a black pectoral band.
 - a⁶. Ear-coverts black, with hoary grey shaft-streaks; head hoary grey *castaneithorax*, p. 340.
 - b⁶. Ear-coverts black; head black, spotted with ashy *nigriceps*, p. 341.
 - f⁵. Chest white like breast and abdomen; head black all round *spectabilis*, p. 342.
 - f⁴. Centre of abdomen chestnut.
 - g⁶. Entire fore neck, breast, and sides of body tawny rufous; back chestnut *forbesi*, p. 343.
 - h⁶. Throat, breast, sides of body, and back black *melæna*, p. 343.
 - g⁴. Centre of abdomen black like the throat and breast; sides of body chestnut *grandis*, p. 344.
 - h⁴. Centre of abdomen black like the throat and breast; sides of body also black; head hoary grey *hunsteini*, p. 344.

- e'''. No black on throat, which is grey or whitish.
 i'. Head ashy; back dark chocolate-brown; breast smoky brown; abdomen black *caniceps*, p. 345.
 k'. Head whitish; back pale chestnut; throat, breast, and abdomen isabelline or light tawny buff *flaviprymna*, p. 345.
 d'. Under tail-coverts chestnut; upper tail-coverts maroon; tail golden yellow; head and throat whitish; back brown; breast and abdomen pale reddish *pallida*, p. 346.
 e'. Under tail-coverts buffy white; throat deep chestnut; sides of body ocellated with black and white spots *punctulata* and allies, [pp. 346-352].
 c. Legs pale; upper tail-coverts and tail dusky blackish; head drab-grey like the back; sides of face and throat black; fore neck and chest white, subterminally barred with black *cabanisi*, p. 353.

1. *Munia oryzivora*.

The Cock Padda or Rice bird, *Edwards, Nat. Hist. B. i.* p. 41, pl. 41 (1743).

Le Gros-bec cendré de la Chine, *Briss. Orn.* iii. p. 244, pl. xi. fig. 4 (1766).

Loxia oryzivora, *Linn. Syst. Nat.* i. p. 802 (1766); *Vieill. Ois. Chant.* p. 94, pl. lxi. (1805); *Raffl. Trans. Linn. Soc.* xiii. p. 314 (1820); *Hahn & Küster, Vög. aus Asien etc.* Lief. x. Taf. 3 (1821); *Schl. & Poll. Faun. Madag., Ois.* p. 154 (1868).

Le Padda ou l'Oiseau de riz, *Buff. Hist. Nat. Ois.* iii. p. 463 (1775).

Le Calfat, *Buff. Hist. Nat. Ois.* iv. p. 371 (1778).

Grosbec de la Chine, *Daubent. Pl. Ent.* iv. pl. 152. fig. 1.

Java Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 129 (1783).

Red-eyed Bunting, *Lath. t. c.* p. 210 (1783).

Emberiza calfat, *Gm. Syst. Nat.* i. p. 887 (1788).

Loxia javensis, *Gm. Syst. Nat.* i. p. 850 (1788); *Sparrm. Mus. Carla.* fasc. iv. pl. 89 (1789).

Coccothraustes oryzivora, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 545 (1817).

Fringilla oryzivora, *Horsf. Trans. Linn. Soc.* xiii. p. 161 (1820); *Strick. Zool. Illustr.* ii. pl. 156. 1822-23.

Ibis, 1870, p. 100; *Swinh. P. Z. S.* 1871, p. 385; *Wald. Tr. Z. S.* viii. p. 72 (1872); *Hume, Nests & Eggs Ind. B.* p. 454 (1873); *Stölker, J. f. O.* 1874, p. 19; *Salvad. Ucc. Born.* p. 203 (1874); *Walden, Tr. Z. S.* ix. p. 207 (1875); *Tweedd. Ibis*, 1877, p. 317; *David & Oustul. Ois. Chine*, p. 344 (1877); *Legge, Birds of Ceylon*, p. 646 (1879); *Meyer, Ibis*, 1879, p. 132; *Sharpe, P. Z. S.* 1879, p. 344; *Nicholson, Ibis*, 1881, p. 153; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlv. p. 222 (1885), xlv. p. 87 (1887).

Padda verecunda, *Reichenb. Singv.* p. 41, Taf. xv. fig. 133 (1861).

Oryzivora leucotis, *Jerd. B. Ind.* ii. p. 350 (1863).

Spermestes oryzivora, *Russ, Stubenv.* p. 136, Taf. viii. fig. 33 (1870).

Adult male. General colour above delicate blue-grey; lower back, rump, and upper tail-coverts black; wing-coverts like the back; bastard-wing, primary-coverts, and quills black, narrowly edged with grey, the inner secondaries entirely blue-grey, like the back; tail-feathers black; crown of head glossy black as far as the nape, where the black is sharply defined; lores and eyelid black; sides of face, ear-coverts, and cheeks pure white, forming a large patch, which is girt by a narrow black line; chin and upper throat black; remainder of throat, sides of neck, fore neck, and breast delicate blue-grey; abdomen, sides of body, and flanks clear vinous; thighs and under tail-coverts white, with a slight tinge of vinous; under wing-coverts and axillaries pale vinous, the edge of the wing blue-grey; quills below ashy, paler along the inner edge: "bill and eyelid rosy pink, shading to a delicate rosy white towards the tip; feet pale pink; iris dull lake" (*W. Davison*). Total length 5.4 inches, culmen 0.65, wing 2.65, tail 1.9, tarsus 0.7.

Adult female. Similar to the male. Total length 5.4 inches, culmen 0.6, wing 2.65, tail 1.75, tarsus 0.7.

Hab. Java, Sumatra, and Malacca. Introduced into many other countries.

| | | |
|--|---|------------------------------|
| <i>a.</i> Ad. sk. | Japan. | Gould Coll. |
| <i>b, c.</i> Ad. sk. | Cochin China. | M. E. Pierre [P.]. |
| <i>d.</i> Ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| <i>e.</i> Ad. sk. | Malacca (<i>Cantor</i>). | India Museum. |
| <i>f-l.</i> ♂; <i>m-t.</i> ♀
ad. sk. | Singapore Island, Jan.,
Feb., Aug., Sept. (<i>W. Davison</i>). | Hume Coll. |
| <i>u.</i> Ad.; <i>v, w.</i> Juv.
sk. | Java. | Tweeddale Coll. |
| <i>x.</i> ♂ ad. sk. | E. Java. | Wallace Coll. |
| <i>y.</i> Ad. sk. | Java (<i>Horsfield</i>). | India Mus. |
| <i>z.</i> Juv. sk. | Lamong, Sumatra (<i>E. C. Burton</i>). | Tweeddale Coll. |
| <i>a', b'.</i> ♂ ad.; <i>c'.</i> ♀
juv. sk. | Lombok. | Wallace Coll. |
| <i>d'.</i> Ad. sk. | Labuan. | Sir Hugh Low [C.]. |
| <i>e'.</i> Ad. sk. | Labuan (<i>H. Low</i>). | Tweeddale Coll. |
| <i>f'.</i> Ad. sk. | Banjerassing, Borneo
(<i>J. Motley</i>). | Wallace Coll. |
| <i>g', h', i'.</i> Ad. sk. | Manila, Luzon, Sept.
(<i>Maitland-Heriot</i>). | Tweeddale Coll. |

| | | |
|---------------------------|------------------------------------|----------------|
| k'. Ad. ; l'. Juv.
sk. | Amoy, Sept., Oct. (R.
Swinhoe). | Seebohm Coll. |
| m'. Juv. sk. | Seychelles. | Sharpe Coll. |
| n'. Ad. sk. | Mauritius. | Zool. Society. |
| o'. Ad. sk. | Zanzibar (Sir J. Kirk). | Sharpe Coll. |
| p'. Ad. sk. | Pangani (Sir J. Kirk). | Shelley Coll. |
| q'. Var. sk. | | Forbes Coll. |
| r'. Var. sk. | | Riocour Coll. |

2. *Munia fuscata*.

Loxia fuscata, Vieill. Ois. Chant. p. 95, pl. lxii. (1805).

Coccothraustes fuscata, Vieill. N. Dict. d'Hist. Nat. xiii. p. 545 (1817).

Amadina fuscata, Gray, Gen. B. ii. p. 369 (1849); *id.* Hand-l. B. ii. p. 55, no. 6777 (1870).

Munia fuscata, Bp. Consp. Av. i. p. 451 (1850); Wall. P. Z. S. 1863, p. 486; Bartlett, Monogr. of Weaver-Birds, part iii. (1889).

Oryzornis fuscata, Cab. Mus. Hein. i. p. 174, note (1850).

Padda fuscata, Reichenb. Singr. p. 43, pl. xv. fig. 140 (1861); Salvad. Ucc. Born. p. 224 (1874).

Spermestes fuscata, Russ, Stubenv. p. 142 (1879).

Adult male. Light chocolate-brown, inclining to dull ashy on the lower rump and upper tail-coverts; wing-coverts and inner secondaries a little duller chocolate than the back; quills blackish brown, externally washed with chocolate-brown; tail-feathers blackish; crown of head dusky black, becoming chocolate-brown towards the nape; lores and eyelid black; feathers below the eye, cheeks, and ear-coverts white; chin and upper throat black; remainder of throat, sides of neck, fore neck, and upper breast light chocolate-brown; the remainder of the under surface of the body white, which is separated from the brown chest by a band of black; under wing-coverts white; quills dusky below, ashy isabelline along the inner web. Total length 5·3 inches, culmen 0·55, wing 2·45, tail 1·65, tarsus 0·65.

Adult female. Similar to the male. Total length 4·7 inches, culmen 0·55, wing 2·45, tail 1·6, tarsus 0·7.

Hab. Timor.

a, b, c Ad. sk

E. Timor.

Wallace Coll

Grosbec de Java dit de Jacobin, *Daubent. Pl. Enl.* iv. pl. 139. fig. 3.
Loxia jacobin, *P. L. S. Müll. S. N.*, Anhang, p. 151 (1776); *Cass.*
Proc. Philad. Acad. 1864, p. 252.

Malacca Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 140 (1783).

Coccothraustes malacca, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 532 (1817).

Spermestes malacca, *Jerd. Madr. Journ.* xi. p. 27 (1840).

Amadina malacca, *Strickl. P. Z. S.* 1842, p. 167; *Blyth, J. A. S. B.* xv. pp. 36, 285 (1846); *Gray, Gen. B.* ii. p. 370 (1849); *Kelaart, Prodr.*, App. p. 125 (1852); *Layard, Ann. & Mag. Nat. Hist.* (2) xiii. p. 258 (1854); *Gray, Hand-l. B.* ii. p. 54, no. 6758 (1870); *Hume, Str. F.* 1879, p. 107; *Butler, Cat. B. S. Bomb. Pres.* p. 60 (1880); *Vidal, Str. F.* ix. p. 71 (1880); *Davison, Str. F.* x. p. 402 (1883); *Taylor, t. c.* p. 462 (1887); *Terry, t. c.* p. 478 (1887).

Munia malacca, *Blyth, Cat. B. Mus. As. Soc.* p. 116 (1849); *Bp. Consp. Av.* i. p. 452 (pt.) (1850); *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 507 (1856); *Reichenb. Singv.* p. 39, pl. xiv. figs. 121, 122 (1861); *Jerd. B. Ind.* ii. p. 352 (1863); *Holdsw. P. Z. S.* 1872, p. 464; *Hume, Nests & Eggs Ind. B.* p. 443 (1873); *Salvad. Ucc. Born.* p. 206 (1874); *Hume, Str. F.* vii. p. 39 (1878); *Ball, t. c.* p. 222; *Legge, Birds of Ceylon*, p. 652 (1879); *Bartlett, Monogr. Weaver-B.* pt. iii. (1889).

Dermophrys malacca, *Cab. Mus. Hein.* i. p. 174 (1850).

Spermestes braccata, *Licht. Nomencl. Av.* p. 49 (1854).

Spermestes malaccensis, *Russ, Stubenv.* p. 169, Taf. vi. fig. 31 (1879).

Adult male. General colour above chestnut, deepening towards the lower back and rump and upper tail-coverts, which are maroon, with a wash of golden on the latter; wing-coverts like the back; quills dusky brown, edged externally with chestnut; tail-feathers dusky brown, externally golden orange; head all round, throat, and chest black; remainder of under surface of body white, the centre of the breast, abdomen, thighs, and under tail-coverts black; under wing-coverts white, mottled with chestnut along the edge of the wing; quills dusky brown below, ashy rufous along the inner edge of the wing: "bill pale lavender; feet leaden blue; iris dark brown." Total length 4·3 inches, culmen 0·45, wing 2·2, tail 1·35, tarsus 0·6.

Adult female. Similar to the male. Total length 4·1 inches, culmen 0·45, wing 2·1, tail 1·25, tarsus 0·65.

As far as I can judge there is no seasonal change of plumage in this species, though some specimens show a few dusky or blackish edgings to some of the white feathers of the breast adjoining the black abdomen.

Young. Reddish brown, the head more dusky brown; wing-coverts like the back; quills dusky, externally reddish brown; tail-feathers dark brown; sides of head dusky brown, as also the cheeks; under surface of body isabelline buff, more ashy on the throat and whiter on the chin.

Hab. Southern and Central India, and Ceylon.

| | | |
|-------------------|---|-----------------|
| a. Ad. sk. | Ceylon. | Gould Coll. |
| b, c. ♂ ♀ ad. sk. | Badulla district, Dec. 26, 1886
(S. Chapman). | Tweeddale Coll. |
| d. Ad. sk. | Anjango, Travancore. | Hume Coll. |
| e. ♂ ad. sk. | Vellarney Lake, Travancore,
June 21 (F. Bourdillon). | Hume Coll. |

| | | |
|--|--|------------------------------|
| f. Ad. sk. | Malabar Coast. | Hume Coll. |
| g, h. Ad. sk. | Coorg. | Tweeddale Coll. |
| i. ♂ ad. sk. | Bangalore, Sept. 22, 1874
(F. Coussmaker). | Hume Coll. |
| k. ♂ ad. sk. | Bangalore, Sept. 22, 1874
(F. Coussmaker). | Major C. T. Bingham
[P.]. |
| l-u. ♂ ad. sk. | Madras, March. | Hume Coll. |
| v. Ad. sk. | Madras (T. C. Jerdon). | Gould Coll. |
| w. ♂ ad. sk. | Pothanore, Oct. 24 (A. G. R.
Theobald). | Hume Coll. |
| x. Ad. sk. | Mysore (F. Day). | India Mus. |
| y-f. ♂ ad. et juv.;
g'-f. ♀ ad. sk. | Belgaum, July-Oct. (E. A.
Butler). | Hume Coll. |
| m. ♀ ad. sk. | Bundara district, Central Pro-
vinces, July (F. Blewitt). | Hume Coll. |
| n', o'. Ad. sk. | Raipur, July (F. Blewitt). | Hume Coll. |
| p'. Ad. sk. | India. | Riocour Coll. |

4. *Munia ferruginosa*.

Loxia ferruginosa, Sparrm. *Mus. Carol.* fasc. iv. pls. 90, 91 (1789);
Sundev. Crit. om Sparrm. p. 14 (1857).

Fringilla maja (nec Linn.), Horsf. *Trans. Linn. Soc.* xiii. p. 162
(1820).

Fringilla maianoides, Temm. *Pl. Col.* iii. pl. 500, fig. 3 (1830).

Amadina ferruginea, Gray, *Gen. B.* ii. p. 370 (1840).

Munia ferruginosa, Blyth, *Cat. B. Mus. As. Soc.* p. 116 (1849);
Reichenb. Singv. p. 41, pl. xv. figs. 134, 135 (1861); *Nicholson*,
Ibis, 1881, p. 162; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv.
p. 219 (1885).

Munia ferruginea, Bp. *Consp. Av.* i. p. 451 (1850).

Dermophrys ferruginea, Cab. *Mus. Hein.* i. p. 174, note (1850).

Amadina ferruginosa, Gray, *Hand-l. B.* ii. p. 54, no. 6756 (1870).

Adult male. Similar to *M. maja*, but very much deeper chestnut,
and distinguished by its entirely black throat and fore neck;
remainder of under surface of body deep maroon, the centre of the
breast, abdomen, thighs, lower flanks, and under tail-coverts black:
"iris black" (*H. O. Forbes*). Total length 4.5 inches, culmen 0.45,
wing 2.05, tail 1.3, tarsus 0.6.

Hab. Java.

Fringilla maja, *Bodd. Tabl. Pl. Enl.* p. 7 (1783); *Licht. Verz. Doubl.* p. 26 (1823).

Loxia leucocephala, *Raffl. Trans. Linn. Soc.* xiii. p. 314 (1822).

Amadina maja, *Blyth, J. A. S. B.* xiii. p. 949 (1844), xv. pp. 36, 285 (1846); *Gray, Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 54, no. 6754 (1870); *Hume, Str. F.* 1879, p. 66.

Munia maja, *Blyth, Cat. B. Mus. As. Soc.* p. 116 (1849); *Bp. Consp. Av.* i. p. 451 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 505 (1856); *Reichenb. Singv.* p. 40, pl. xv. figs. 130-132 (1861); *Stoliczka, J. A. S. B.* xxxix. p. 329 (1870); *Walden, Ibis*, 1871, p. 177; *Hume, Str. F.* 1873, p. 460; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 218 (1885), xlvi. p. 87 (1887).

Dermophrys maja, *Cab. Mus. Hein.* i. p. 174 (1850).

Adult male. General colour above dull chestnut-brown; rump and upper tail-coverts glossy maroon, the latter inclining to deep crimson; tail-feathers blackish, with deep crimson edges to the centre ones; wing-coverts and inner secondaries like the back; bastard-wing, primary-coverts, and quills dusky brown, edged with the same colour as the back; head all round and throat white, the hind neck white, washed with brown, as also the centre of the throat, which is chocolate-brown; the centre of the breast and abdomen, thighs, and under tail-coverts black; sides of the breast and flanks deep chestnut; under wing-coverts tawny buff; quills dusky, chestnut along the inner web: "bill very pale blue, whitish towards the tip and along the commissure; feet and claws very dark plumbeous; iris dark brown" (*W. Davison*). Total length 4.1 inches, culmen 0.45, wing 2.15, tail 1.3, tarsus 0.65.

Adult female. Similar in colour to the male. Total length 4 inches, culmen 0.45, wing 2.1, tail 1.55, tarsus 0.55.

Young. Entirely brown, inclining to ochreous brown on the rump and upper tail-coverts; quills and tail-feathers brown, edged with the same colour as the back; sides of face, ear-coverts, cheeks, and under surface of body pale tawny buff, lighter on the throat and centre of the body.

The young birds moult directly into the red plumage of the adult, but the head, throat, and chest are smoky brown, leaving only a little white on the face and chin; there is very little black on the abdomen compared with the adult, at least in the females. Whether the adults moult into a seasonal plumage, I am unable to find out from our series.

Hab. Malayan Peninsula, from the Wellesley Province southwards. Sumatra. Java.

| | | |
|---|---|---------------|
| <i>a, b.</i> Ad.; <i>c.</i> Juv. sk. | Wellesley Province, Malacca, Nov. 27 (<i>F. Stoliczka</i>). | Hume Coll. |
| <i>d, e.</i> ♂ ad. sk. | Perak, Feb., May (<i>H. Kelham</i>). | Forbes Coll. |
| <i>f-g.</i> ♂ ad. sk. | Penang, July (<i>W. Davison</i>). | Hume Coll. |
| <i>h, i, k.</i> Ad. sk. | Penang (<i>Dr. Cantor</i>). | India Museum. |
| <i>l-y.</i> ♂ ad. et juv.; <i>z-h'.</i> ♀ ad. sk. | Klang, Salangore, Feb.-April, Aug., Oct. (<i>W. Davison</i>). | Hume Coll. |
| <i>i', k'.</i> ♀ ad. sk. | Jerome, Salangore, Aug. (<i>W. Davison</i>). | Hume Coll. |

| | | |
|---|--|-----------------|
| <i>l, m'</i> . ♂ ad. sk. | Gunong Pulai, Jahore, March, July (<i>W. D.</i>). | Hume Coll. |
| <i>n'-q'</i> . ♀ ad. et juv.;
<i>r'-v'</i> . ♂ ad. et
juv. sk. | Singapore, Sept. (<i>W. D.</i>). | Hume Coll. |
| <i>w'-f'</i> . ♂ ad. et
juv.; <i>g'-x''</i> . ♀
ad. et juv. sk. | Singapore Island, Jan., Feb.,
Aug., Sept. (<i>W. D.</i>). | Hume Coll. |
| <i>y''</i> . Juv. sk. | Acheen, Sumatra, Feb. 4, 1873
(<i>W. D.</i>). | Hume Coll. |
| <i>z''</i> . Ad. sk. | Sumatra. | Wallace Coll. |
| <i>a'''</i> . ♂ ad. sk. | Sumatra (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| <i>b'''</i> . Ad. sk. | Sumatra (<i>C. Bock</i>). | Tweeddale Coll. |
| <i>c'''</i> . Juv. sk. | Lampong (<i>E. C. Burton</i>). | Tweeddale Coll. |
| <i>d'''</i> . Ad. sk. | Java (<i>Horsfield</i>). | India Museum. |
| <i>e'''</i> . Ad. sk. | Java. | Riocour Coll. |

6. *Munia atricapilla* *.

Loxia atricapilla, *Vieill. Ois. Chant.* p. 84, pl. 53 (1805).

Coccothraustes atricapilla, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 534 (1817).

Munia rubronigra, *Hodgs. Asiat. Researches*, xix. p. 153 (1836); *Blyth, Cat. B. Mus. As. Soc.* p. 116 (1849); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 507 (1850); *Reichenb. Singr.* p. 39 (1861); *Jerd. B. Ind.* ii. p. 253 (1863); *Godwin-Austen, J. A. S. Beng.* xxxix. p. 110 (1870); *Stoliczka, t. c.* p. 329; *Walden, Ibis*, 1871, p. 177; *Holdsw. P. Z. S.* 1872, p. 464; *Layard, P. Z. S.* 1873, p. 205; *Blyth & Wald. B. Burm.* p. 92 (1875); *Hume, Str. F.* v. p. 39 (1877); *Oates, t. c.* p. 160 (1877); *Hume & Davison, Str. F.* vi. p. 401 (1878); *Ball, Str. F.* vii. p. 222; *Cripps, t. c.* p. 293; *Legge, B. Ceylon*, p. 652, note (1879); *Bingham, Str. F.* ix. p. 193 (1880).

Lonchura melanocephala, *McClell. P. Z. S.* 1839, p. 163.

Spermestes melanocephala, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 307, figs. 4, 5 (nos. 322, 323); *id. in Gray's Zool. Misc.* p. 84 (1844); *Blyth, Ann. & Mag. N. H.* xiii. p. 166 (1843).

Munia malacca, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 106 (1846).

Munia sinensis, *Moore, P. Z. S.* 1859, p. 444; *Reichenb. Singr.* p. 39, Taf. xiv. figs. 123, 124 (1861); *Swinh. P. Z. S.* 1871, p. 385; *David & Chist. Ois. Chine*, p. 343 (1877).

Yun-nan, Birds, p. 593 (1878); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 220 (1885).

Amadina rubronigra, *Hume, Str. F.* viii. p. 107 (1879); *Scully, t. c.* p. 332; *Vidal, Str. F.* ix. p. 71 (1880); *Reid, Str. F.* x. p. 55 (1881); *Oates, t. c.* p. 232 (1882); *Hume, Str. F.* xi. p. 272 (1888).

Adult male. General colour above light rufous or chestnut, the wing-coverts like the back; quills dusky brown, externally chestnut, the inner secondaries entirely of the latter colour; rump and upper tail-coverts glossy maroon, the latter with a slight golden gloss; tail-feathers brown with deep orange margins; head and neck all round, throat, and fore neck glossy black; remainder of under surface of body chestnut, the centre of the lower breast, abdomen, thighs, and under tail-coverts black; under wing-coverts pale tawny buff, the edge of the wing chestnut: "bill pale leaden blue; legs and toes dark bluish plumbeous; iris dark brown" (*J. Scully*). Total length 4·5 inches, culmen 0·5, wing 2·1, tail 1·35, tarsus 0·6.

Although, at first sight, a considerable difference is apparent between a Malaccan and a Himalayan specimen of the Rufous-and-black Weaver-Finch, there are many specimens which are thoroughly intermediate between these two forms, especially in the Burmese provinces. The grey mottling on the mantle appears to be a decided character of the Malayan race, but it is less developed in some of the Tenasserim birds, and it is by no means certain that the Himalayan birds do not possess a similar stage of plumage. After the moult it is evident that the mantle of Malaccan specimens is much more uniform, for instance in August, than it is in February, when the grey mottling on the mantle is very distinct; the latter may be a sign of breeding-plumage.

The following is a description of a pair from Malacca:—

Adult male. Similar to the Himalayan form, but smaller, with less black on the abdomen and with hoary-grey edges to the feathers of the mantle, which is slightly mottled: "bill leaden blue; feet dark plumbeous; iris dark brown" (*E. W. Oates*). Total length 3·7 inches, culmen 0·45, wing 2, tail 1·3, tarsus 0·6.

Adult female. Similar to the male. Total length 3·8 inches, culmen 0·45, wing 2, tail 1·3, tarsus 0·6.

Young. Brown, more or less tinged with chestnut, especially on the wing-coverts; head and sides of face ashy brown; cheeks, throat, and underparts ochreous buff, inclining to hoary white on the former.

The adult plumage is gained at once by a moult, but there seems to be no seasonal change in the species.

Hab. Himalayas and Central India to the Burmese countries and the Malayan Peninsula.

a. *M. rubronigra*.

a-e. ♂ ad.; f. N.W. Himalayas.

Pinwill Coll.

Juv. sk.

g. Ad. sk.

Dehra Doon.

Hume Coll.

| | | |
|--|--|--|
| <i>h</i> . Ad. sk. | Dehra Dhoon. | Tweeddale Coll. |
| <i>i</i> . Ad. st. | Nepal. | Hodgson Coll. |
| <i>k</i> , <i>l</i> . Ad.; <i>m</i> , <i>n</i> .
Juv. sk. | Nepal. | Hodgson Coll. |
| <i>o</i> , <i>p</i> , <i>q</i> . Ad. sk. | Nepal (<i>B. H. Hodgson</i>). | (Types of <i>M. rubronigra</i> .)
India Museum. |
| <i>r-u</i> . Ad.; <i>v-w</i> . ♀
juv. sk. | Nepal Valley, June, Sept. (<i>J. Scully</i>). | Hume Coll. |
| <i>x</i> , <i>y</i> . Ad. sk. | Sikhim. | Hume Coll. |
| <i>z-e</i> . Ad. sk. | Bhotan Doars, Jan., Feb., April
(<i>L. Mandelli</i>). | Hume Coll. |
| <i>f</i> . Ad. sk. | Assam (<i>J. McClelland</i>). | India Museum. |
| <i>g</i> , <i>h</i> . ♂ juv., ♀
ad. sk. | Shillong, July (<i>J. Cockburn</i>). | (Type of <i>L. melanocephala</i> .)
Hume Coll. |
| <i>i</i> . ♂ ad. sk. | Shillong, June (<i>A. W. Chennell</i>). | Tweeddale Coll. |
| <i>k</i> , <i>l</i> . Ad. sk. | Near Sadhyia, April, June (<i>J. Cockburn</i>). | Hume Coll. |
| <i>m</i> - <i>q</i> . ♂ ad.; <i>r</i> ,
<i>s</i> . ♀ ad. sk. | Dibrughur, July, Sept. (<i>J. R. Cripps</i>). | Hume Coll. |
| <i>t</i> . Ad. sk. | Mymensing. | Tweeddale Coll. |
| <i>u</i> , <i>v</i> . ♂ ad. sk. | Cachar, Feb. (<i>J. Inglis</i>). | Hume Coll. |
| <i>w</i> . ♂ juv. sk. | Cachar, March (<i>J. Inglis</i>). | Forbes Coll. |
| <i>x</i> , <i>y</i> , <i>z</i> . ♂; <i>a</i> ,
<i>b</i> , <i>c</i> . ♀ ad. et
juv. sk. | Sylhet, Jan. (<i>A. O. H.</i>). | Hume Coll. |
| <i>d</i> , <i>e</i> , <i>f</i> . ♂; <i>g</i> ,
<i>h</i> . ♀ ad. sk. | Manipur, May (<i>A. O. H.</i>). | Hume Coll. |
| <i>i</i> , <i>k</i> . Ad. sk. | Dacca. | Hume Coll. |
| <i>l</i> . Ad. sk. | Tippera. | Tweeddale Coll. |
| <i>m</i> . ♂; <i>n</i> , <i>o</i> . ♀;
<i>p</i> . Juv. sk. | Sumbulpur, Central Provinces. | Hume Coll. |

β. M. atricapilla.

| | | |
|--|--|-------------------|
| <i>q</i> . Ad. sk. | Upper Burmah. | Dr. Jerdon [P.] |
| <i>r</i> , <i>s</i> . Ad. sk. | Mungla, Sanda Valley, July. | Dr. Anderson [C.] |
| <i>t</i> , <i>u</i> , <i>v</i> . ♂; <i>w</i> .
♀ ad. sk. | Tonghoo, May, Oct. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>x</i> - <i>c</i> . ♂ ad. et
juv.; <i>d</i> . ♀
juv. sk. | Pegu, Jan. to May. | Oates Coll. |
| <i>e</i> , <i>f</i> . Juv. sk. | Saigon, Cochin China, Aug. | M. E. Pierre [P.] |

7. *Munia jagori*.

Munia (Dermophrys) *jagori*, *Cab. in Mus. Berol.*; *Martens, J. f. O.* 1866, p. 14.

Dermophrys jagori, *Cab. J. f. O.* 1872, p. 316.

Amadina jagori, *Gray, Hand-l. B.* ii. p. 55, no. 6766 (1870).

Amadina minuta, *Gray, t. c.* p. 55, no. 6761 (1870).

Munia jagori, *Walden, Trans. Z. S.* ix. p. 207 (1875); *Salvad. Ann. Mus. Genov.* vii. p. 667 (1875); *Sharpe, Trans. Linn. Soc.* 2nd ser. i. p. 353 (1876); *Tweeddale, P. Z. S.* 1877, pp. 549, 609, 764; *id. P. Z. S.* 1878, pp. 288, 343, 710, 951; *id. Rep. Voy. 'Challenger,' Zool.* ii. p. 22 (1880); *Salvad. Ann. Mus. Genov.* xvi. p. 192 (1880); *id. Orn. Papuasias etc.* ii. p. 437 (1881); *Wardlaw Ramsay, Tweeddale Mem.* p. 654 (1881).

Munia atricapilla (nec V.), *Sharpe, Ibis*, 1888, p. 202.

Adult male. Similar to *M. atricapilla*, but with much more extended black patch on the belly, this black extending nearly to the throat, and leaving a very narrow chestnut band between; head and throat deep black: "bill pale grey; feet dark grey; iris brown" (*A. Everett*). Total length 3.7 inches, culmen 0.45, wing 2, tail 1.4, tarsus 0.6.

Adult female. Similar to the male: "bill pale bluish grey; legs darker grey; iris red-brown" (*A. Everett*). Total length 4 inches, culmen 0.45, wing 1.95, tail 1.25, tarsus 0.55.

Probably identical with *M. jagori* is *Munia minuta* of Meyen*, but the figure is so absolutely unlike any of these Black-headed Weaver-Finches that I am obliged to leave the species unidentified, as was also Lord Tweeddale. There are several specimens of black-headed *Munia* from the Philippines in the Tweeddale collection which show somewhat of a brown head, but a complete gradation between the two forms appears to take place.

Hab. Philippine Islands.

| | | |
|---|---|-----------------|
| a. ♀ ad. sk. | San Mateo, Luzon, Feb. 1877
(<i>A. Everett</i>). | Tweeddale Coll. |
| b, c. ♂ ♀ ad. sk. | Cebu, April (<i>A. B. Meyer</i>). | Tweeddale Coll. |
| d, e. ♂ ad. sk. | Cebu, March (<i>A. H. Everett</i>). | Tweeddale Coll. |
| f. ♂ ad.; g, h. ♀ ad. sk. | S. Leyte, July, Sept. (<i>A. H. E.</i>). | Tweeddale Coll. |
| i. ♂ ad. sk. | N. Bohol, Oct. (<i>A. H. E.</i>). | Tweeddale Coll. |
| k, l, m, n. ♂ ad. et juv.; o. ♀ ad. sk. | Valencia, Negros, Aug.
(<i>A. H. E.</i>). | Tweeddale Coll. |
| p. ♀ ad. sk. | Dumaguete, Negros, Aug.
(<i>A. H. E.</i>). | Tweeddale Coll. |
| q. ♂ ad. sk. | Dumaguete, Aug. (<i>A. H. E.</i>). | Forbes Coll. |

* MUNIA MINUTA.

Fringilla minuta, *Meyen, N. Acta Acad. Cæs. Leop.-Carol. Nat. Cur.* xvi. *Suppl.* p. 86, pl. xxii. fig. 2 (1834); *Martens, J. f. O.* 1866, p. 14.

Munia minuta, *Walden, Trans. Z. S.* ix. p. 208 (1877).

Hab. Manila.

| | | |
|--|--|--------------------------------|
| r. ♂ ad. sk. | Butuan, N. Mindanao, May
(A. H. E.). | Tweeddale Coll. |
| s, t. ♂ ♀ ad. sk. | Placer, S. Mindanao, July
(A. H. E.). | Tweeddale Coll. |
| u, v. ♂ ♀ ad. sk. | Zamboanga, Mindanao. | Voy. H.M.S. 'Chal-
lenger.' |
| w, x, y. ♂ ad. et
imm.; z. ♀ ad.
sk. | Zamboanga, March (A. H. E.). | Tweeddale Coll. |
| a'. ♂ ad. sk. | Taguso, Palawan, July. | J. Whitehead, Esq. |

8. *Munia formosana*.

Munia formosana, Swinh. *Ibis*, 1865, p. 366; *id.* *P. Z. S.* 1871, p. 385;
Walden, Trans. Z. S. ix. p. 207 (1877); *David. & Oust. Ois. Chine*,
 p. 342 (1877); *Salvad. Orn. Papuaia etc.* ii. p. 438, note (1881).
Amadina formosana, Gray, *Hand-l. B.* ii. p. 55, no. 6764 (1870).

Adult (type of species). Similar to *M. atricapilla* but duller chestnut, perfectly uniform above, the black on the belly very much extended, so as to leave only a little chestnut between the throat and the black of the breast, but especially distinguished by its smoky-brown head and neck, the fore part of the crown and sides of face being blacker: "bill cobalt-blue, deeper on the culmen and gonyes; feet and claws plumbeous, with light yellowish soles and bases; iris deep rich brown" (*R. Swinhoe*). Total length 3·8 inches, culmen 0·45, wing 1·9, tail 1·4, tarsus 0·6.

Hab. Island of Formosa.

| | | |
|---------------------------|--|---------------------|
| a, b. Ad. et juv. sk. | Formosa (<i>R. Swinhoe</i>). | Tweeddale Coll. |
| c-h. Ad. et juv. sk. | Formosa, Jan., Feb. (<i>R. Swinhoe</i>). | Seebohm Coll. |
| i-l. Ad. sk. | Takow, Formosa, March (<i>R. S.</i>). | Seebohm Coll. |
| m. Ad. sk. | Takow, March (<i>R. S.</i>). | Tweeddale Coll. |
| n. Ad.; o, p. Juv.
sk. | Takow, March (<i>R. S.</i>). | Seebohm Coll. |
| | | (Types of species.) |

Subsp. α. *Munia brunneiceps*.

† *Amadina sinensis*, *Mott. & Dillw. Nat. Hist. Labuan*, p. 25, pl. 6
 (1855) *.

Munia palucca (*var. L.*) *S. & P. Z. S.* 1863, p. 219.

| | | |
|--------------------------|---|---------------------|
| <i>a.</i> Ad. sk. | N. Celebes. | Tweeddale Coll. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Makassar. | Wallace Coll. |
| | | (Types of species.) |
| <i>d, e.</i> Ad. sk. | Menado. | Gould Coll. |
| <i>f.</i> Juv. sk. | Labuan (<i>Sir H. Low</i>). | R. B. Sharpe, Esq. |
| | | [P.] |
| <i>g, h.</i> Ad. sk. | Lawas River, N.W. Borneo
(<i>W. Burbidge</i>). | H. Veitch, Esq. |
| | | [P.] |
| <i>i.</i> ♀ ad. sk. | Sarawak, Borneo. | Wallace Coll. |
| <i>k.</i> Ad. sk. | Banjermassing (<i>J. Motley</i>). | Tweeddale Coll. |

9. *Munia quinticolor*.

Loxia quinticolor, *Vieill. Ois. Chant.* pl. 54 (1805).

Coccothraustes quinticolor, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 538 (1817).

Amadina quinticolor, *Gray, Gen. B.* ii. p. 370 (1849); *Finsch, Neu-Guinea*, p. 176 (1865, pt.); *Gray, Hand-l. B.* ii. p. 56, no. 6783 (1870).

Munia quinticolor, *Bp. Consp.* i. p. 451 (1850); *Wall. P. Z. S.* 1863, p. 486 (pt.).

Diachmura quinticolor, *Reichenb. Singv.* p. 48, Taf. xvii. fig. 155 (1863).

Adult. General colour above clear chestnut or bay, with indistinct hoary margins to the feathers; rump and upper tail-coverts glossy golden yellow; lesser and median wing-coverts like the back; remainder of wing-coverts and quills dusky brown, externally dull chestnut; tail-feathers dusky brown, the centre feathers edged with straw-yellow, the others chestnut on the margins; crown of head and hind neck dusky brown, with hoary margins; forehead, lores, sides of face, and ear-coverts chestnut, the cheeks and ear-coverts with whitish shaft-lines; throat maroon-chestnut, becoming blacker on the lower throat; remainder of under surface of body from the fore neck downwards white; sides of lower back, thighs, and under tail-coverts black; axillaries and under wing-coverts white with a tinge of fawn-colour, the lower coverts dusky brown like the under surface of the quills, which are light tawny along the inner edge. Total length 4·5 inches, culmen 0·5, wing 2·15, tail 1·3, tarsus 0·65.

Another specimen shows none of the pale hoary margins to the feathers of the upper surface, and these may be a sign of seasonal plumage only.

Hab. Timor and Flores.

| | | |
|---|---------------------------------|---------------|
| <i>a, b, c.</i> ♂; <i>d, e.</i> Ad. sk. | E. Timor. | Wallace Coll. |
| <i>f.</i> Ad. sk. | Timor (<i>A. R. Wallace</i>). | Gould Coll. |
| <i>g.</i> Ad. sk. | Timor (<i>A. R. Wallace</i>). | Seebohm Coll. |
| <i>h, i.</i> Ad. sk. | Flores. | Wallace Coll. |

10. *Munia wallacii*.

Munia quinticolor, *Wall. P. Z. S.* 1863, p. 486 (pt.).

Amadina quinticolor (*nec V.*), *Finsch, Neu-Guinea*, p. 176 (1865, pt.).

Adult male. Similar to *M. quinticolor*, but with the rump and upper tail-coverts glossy maroon, not yellow: "bill and feet p

lead-colour; iris dark " (*A. R. Wallace*). Total length 4·5 inches, culmen 0·5, wing 2·05, tail 1·4, tarsus 0·65.

Adult female. Similar to the male. Total length 4·3 inches, culmen 0·5, wing 2, tail 1·3, tarsus 0·65.

Hab. Lombock.

| | | |
|--------------|-----------------------------------|--------------------------------|
| a. ♀ ad. sk. | Lombock. | Wallace Coll. |
| b. ♂ ad. sk. | Lombock (<i>A. R. Wallace</i>). | Gould Coll. (Type of species.) |

11. *Munia castaneithorax*.

Amadina castaneothorax, *Gould, Syn. B. Austr.* pt. ii. (1837); *Gray, Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 55, no. 6767 (1870).

Donacola castaneothorax, *Gould, B. Austr.* fol. iii. pl. 94 (1848); *Bp. Consp.* i. p. 453 (1850); *Reichenb. Vög. Neuhol.* p. 118 (1850); *id. Singv.* p. 27, Taf. viii. figs. 72, 74 (1862); *Gould, Handb. B. Austr.* i. p. 426 (1865); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 54 (1877); *id. op. cit.* ii. p. 187 (1878).

Donacola bivittata, *Reichenb. Singv.* p. 28, Taf. viii. fig. 75 (1862).

Amadina bivittata, *Gray, Hand-l. B.* ii. p. 55, no. 6769 (1869).

Donacicola castaneothorax, *Sharpe, Rep. Voy. 'Alert,'* p. 21 (1884); *Ramsay, Proc. Linn. Soc. N. S. W.* (2) i. p. 1147 (1887); *id. List Austr. B.* p. 10 (1888).

Adult male. General colour above cinnamon-brown, the feathers obscured by their ashy tips; lower rump and upper tail-coverts glossy straw-colour; wing-coverts cinnamon-brown, tipped with ashy like the back; bastard-wing, primary-coverts, and quills dusky brown, edged with cinnamon-brown; centre tail-feathers straw-colour, the rest dusky brown with yellowish or light brown margins; crown of head and hind neck more dusky than the back, and obscured by ashy tips to all the feathers; lores, eyebrow, sides of face, and ear-coverts blackish, with tiny brown shaft-lines; cheeks and throat also blackish, with less distinct pale shaft-lines; sides of neck, fore neck, and chest pale cinnamon, followed by a black band across the breast, which is white like the abdomen; sides of body cinnamon, with some white and black bars, the feathers having a subterminal white bar between two black ones; flanks, thighs, and under tail-coverts black; under wing-coverts and axillaries pale

dusky bases to the feathers ; lower throat and fore neck, as well as the sides of the body, flanks, and thighs, fulvous-brown ; breast and abdomen isabelline, clearer white on the latter and on the under tail-coverts, the latter mottled with black bases ; under wing-coverts and axillaries pale tawny buff.

Young birds gain the adult plumage by the first moult, and specimens are often seen with the throat spotted with black. *D. bivittata* of Reichenbach is merely a bird which has not quite completed its moult !

Hab. Australia.

| | | |
|--|---|----------------------------|
| <i>a.</i> Ad. st. | Australia. | Dr. Günther [P.] |
| <i>b, c, d.</i> Ad. sk. | Australia. | Forbes Coll. |
| <i>e.</i> ♀ imm. sk. | New South Wales. | Gould Coll. |
| <i>f.</i> Imm. sk. | Richmond River. | A. P. Goodwin [C.] |
| <i>g.</i> Ad. ; <i>h.</i> Imm. sk. | Queensland. | Forbes Coll. |
| <i>i, k, l.</i> Ad. ; <i>m.</i> Juv. sk. | Queensland (<i>J. T. Cockerell</i>). | Salvin-Godman Coll. |
| <i>n.</i> Ad. ; <i>o.</i> Imm. sk. | Cape York. | J. B. Jukes, Esq. [P.] |
| <i>p, q.</i> Ad. st. | Cape York. | J. Macgillivray, Esq. [C.] |
| <i>r.</i> Ad. ; <i>s-v.</i> Imm. sk. | Thursday Island, Torres Strait, July 1881 (<i>Dr. Coppinger</i>). | Voy. H.M.S. 'Alert.' |
| <i>w.</i> ♂ ad. sk. | West Island, Torres Straits, Oct. 1881 (<i>Dr. Coppinger</i>). | Voy. H.M.S. 'Alert.' |
| <i>x, y, z.</i> ♂ ad. ; <i>a', b'.</i> ♀ ad. sk. | Port Darwin, Oct. 1881 (<i>Dr. Coppinger</i>). | Voy. H.M.S. 'Alert.' |
| <i>c'.</i> Ad. sk. | Port Albany (<i>C. Coen</i>). | Tweeddale Coll. |
| <i>d'.</i> ♂ ad. sk. | Mabiak, Torres Straits (<i>O. Finsch</i>). | Tweeddale Coll. |

12. *Munia nigriceps*.

Donacola nigriceps, *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 392 (1877) ; *Sharpe, Linn. Soc. Journ., Zool.* xiii. p. 501 (1877), xiv. p. 688 (1879) ; *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 289 (1879), iv. p. 100 (1879).

Donacicola nigriceps, *Salvad. Ann. Mus. Genov.* xvi. p. 192 (1880) ; *id. Orn. Papuasias etc.* ii. p. 441 (1881) ; *Sharpe in Gould's B. New Guinea*, iv. pl. 25 (1881) ; *id. Linn. Soc. Journ., Zool.* xvi. p. 442 (1882).

Adult. General colour above delicate burnt-sienna, with ashy shading to the feathers of the back ; the rump and upper tail-coverts orange, with dusky bases to the feathers ; tail-feathers pointed, dark brown, with straw-yellow margins, the two centre feathers almost entirely straw-yellow ; head and nape chocolate-brown, veined with streaks and spots of ashy whitish, the nape-feathers edged with the latter colour ; lores, feathers above the eye, entire sides of face, and throat uniform black ; fore neck and chest entirely pinkish fawn-colour, forming a large plastron, succeeded by a band of black across the lower breast ; centre of the body and abdomen pure white ;

the flanks regularly barred with black and white; thighs and under tail-coverts black; under wing-coverts buffy white, the edge of the wing minutely barred with black and white; wing-coverts above sienna-brown; quills light brown, externally washed with sienna-brown, ashy brown below, edged with buff along the inner web: "legs slate-colour; iris very dark" (*A. Goldie*). Total length 3·8 inches, culmen 0·4, wing 2, tail 1·55, tarsus 0·6.

Considerable difference is observable in a series with regard to the amount of spotting on the head, but there never seems to be the uniform ashy-brown appearance which is generally characteristic of *M. castaneithorax*. The sides of the face likewise are always uniform, with no lines on the ear-coverts.

Young. Nearly uniform brown above, the head rather more dusky brown; wing-coverts brown like the back, with slightly paler ends to the median and greater series; bastard-wing and primary-coverts uniform dusky brown; quills and tail-feathers dusky brown, edged with the same colour as the back; lores, sides of face, and ear-coverts dark brown, the latter streaked with whity-brown shaft-lines; base of cheeks and chin ashy whitish; throat dark brown, obscured by whity-brown edges to the feathers; remainder of under surface of body pale tawny brown, lighter and more isabelline on the breast and abdomen; under tail-coverts isabelline, mottled with blackish bases; axillaries and under wing-coverts like the breast; quills dusky below, rufous along the inner web.

Hab. South-eastern New Guinea.

| | | |
|------------------------|--|-------------------|
| a, b. Ad. sk. | Port Moresby. | H. Broadbent [C.] |
| c. Ad. sk. | Port Moresby. | O. C. Stone [C.] |
| d, e. Ad. sk. | Port Moresby (<i>Goldie</i>). | Gould Coll. |
| f, g. Ad.; h. Juv. sk. | Port Moresby (<i>Goldie</i>). | Forbes Coll. |
| i. Ad.; k, l. Juv. sk. | Astrolabe Mountains. | A. Goldie [C.] |
| m. Ad. sk. | Astrolabe Mountains (<i>Goldie</i>). | Tweeddale Coll. |

13. *Munia spectabilis*.

Doualcicola spectabilis. *Scl. P. Z. S.* 1870, p. 448, pl. xxxvii, fig. 2:



thighs, and under tail-coverts black; under wing-coverts pale fawn-colour; quills dusky below, fulvescent along the inner web. Total length 3·4 inches, culmen 0·4, wing 1·85, tail 1·2, tarsus 0·6.

Adult female. Paler than the male, with less dusky black on the mantle and back, the wing-coverts like the back, with pale creamy-buff tips to the median wing-coverts; greater coverts and quills dusky blackish, externally dull chestnut; lower rump and upper tail-coverts pale chestnut, not golden; tail-feathers brown; head dusky brown, streaked with black in the centres of the feathers; sides of face and ear-coverts black with whitish shaft-streaks; throat ashy whitish, with blackish bases to the feathers; remainder of under surface of body pale fawn-buff: "bill and feet black; iris brown" (*G. E. Richards*). Total length 3·5 inches, culmen 0·45, wing 2, tail 1·2, tarsus 0·6.

Hab. New Britain.

| | | |
|--------------------------|---|---|
| <i>a, b.</i> Ad. sk. | New Britain. | Rev. G. Brown [C].
(Types of species.) |
| <i>c.</i> ♂ ad. sk. | New Britain, Nov. 3, 1880 (<i>Dr. O. Finsch</i>). | Tweeddale Coll. |
| <i>d, e,</i> ♂ ♀ ad. sk. | Blanche Bay, New Britain,
June 16 (<i>G. E. Richards</i>). | Forbes Coll. |
| <i>f, g.</i> ♂ ♀ ad. sk. | New Britain. | Dr. Klein-schmidt
[C]. |

14. *Munia forbesi*.

Munia forbesi, *Sci. P. Z. S.* 1879, p. 449, pl. xxxvii. fig. 3; *Salvad. Ann. Mus. Genov.* xvi. p. 192 (1880); *Sharpe in Gould's B. New Guinea*, iv. pl. 23 (1881); *Salvad. Orn. Papuasia etc.* ii. p. 438 (1881), iii. App. p. 549 (1882).

Adult male (type of species). General colour about light chestnut, the lower rump and upper tail-coverts deep golden yellow; wing-coverts like the back, the quills dusky brown, externally chestnut; tail-feathers chestnut, externally golden, the outer ones dusky, edged with golden; crown of head and nape, sides of face, ear-coverts, and throat black; rest of under surface of body from the lower throat downwards pale cinnamon-rufous; sides of lower flanks, thighs, vent, and under tail-coverts black; under wing-coverts pale fawn-colour; quills dusky brown, pale rufous along the inner web. Total length 4·2 inches, culmen 0·55, wing 2·05, tail 1·45, tarsus 0·6.

Hab. New Ireland.

| | | |
|---------------------|---------------------------------|--|
| <i>a.</i> ♂ ad. sk. | Topia, New Ireland, Sept. 1878. | Rev. G. Brown [P].
(Type of species.) |
|---------------------|---------------------------------|--|

15. *Munia melana*.

Munia melana, *Sci. P. Z. S.* 1850, p. 66, pl. vii. fig. 2; *Salvad. Ann. Mus. Genov.* xvi. p. 192 (1880); *id. Orn. Papuasia etc.* ii. p. 439 (1881).

Munia hemimelana, *Sci. P. Z. S.* 1850, p. 66 (*lapsus*).

Adult (type of species). Black above, washed with chocolate on

the mantle and back, the lower back and rump chocolate-brown, the latter washed with chestnut; upper tail-coverts deep golden yellow, with a chestnut tinge; tail-feathers blackish, externally golden yellow; lesser wing-coverts blackish like the back; remainder of wing-coverts and quills brown, edged with blackish; entire head, sides of face, and under surface of body black, the centre of the abdomen very pale cinnamon-buff, the sides and flanks cinnamon-buff, tipped or barred with black; lower abdomen, thighs, and under tail-coverts black; under wing-coverts pale cinnamon-buff. Total length 4·3 inches, culmen 0·55, wing 2·05, tail 1·8, tarsus 0·65.

Adult female. Similar to the male. Total length 4·1 inches, culmen 0·55, wing 2·15, tail 1·45, tarsus 0·65.

Hab. New Britain.

| | | |
|-------------------|-------------------------|-----------------------|
| a. Ad. sk. | Kabahadai, New Britain. | Rev. G. Brown [C.] |
| | | (Type of species.) |
| b, c. ♂ ♀ ad. sk. | New Britain, Nov. 1880. | Dr. Kleinschmidt [C.] |

16. *Munia grandis*.

Munia grandis, Sharpe, *Linn. Soc. Journ., Zool.* xvi. pp. 319, 442 (1882); *Salvad. Ann. Mus. Genov.* xviii. p. 426 (1882); *id. Orn. Papuasia etc.* iii. App. p. 549 (1882); *Sharpe in Gould's B. New Guinea*, iv. pl. 22 (1883).

Adult male (type of species). General colour above light bay, the rump and upper tail-coverts shining straw-yellow; least and median coverts like the back; greater coverts darker and more chestnut; primary-coverts and quills dusky brown, externally chestnut, the innermost secondaries entirely of the latter colour; central tail-feathers straw-yellow, dark brown along the middle; remainder of tail-feathers edged with straw-yellow; entire head and neck all round jet-black, as well as the breast and entire under surface, with the exception of a patch of light chestnut on the sides of the breast and upper flanks; under wing-coverts and axillaries light reddish, the lower series ashy rufous; quills dusky brown below, ashy rufous along the edge of the inner web. Total length 4 inches, culmen 0·5, wing 2·2, tail 1·55, tarsus 0·65.

blackish brown, the centre ones golden towards the ends, like the upper tail-coverts; crown of head, nape, and hind neck hoary grey, mottled with blackish bases to the feathers; lores and feathers below the eye, eyelid, and fore part of cheeks black; ear-coverts hoary grey like the head, a shade of the same colour overspreading the hinder cheeks; throat and entire under surface of body velvety black; under wing-coverts pale tawny buff, the edge of the wing black; quills below blackish, pale tawny buff along the inner edge: "bill and feet black, iris dark" (*O. Finsch*). Total length 3·5 inches, culmen 0·4, wing 2, tail 1·15, tarsus 0·6.

Adult female. Similar to the male in colour. Total length 3·5 inches, culmen 0·4, wing 1·9, tail 1·2, tarsus 0·55.

Young. Brown, without any of the chestnut on the rump and tail, and only a slight indication of grey here and there on the head; sides of face, cheeks, throat, and chest dark chocolate-brown, the breast and abdomen isabelline buff.

Hab. New Ireland.

a, b. ♂ ♀ ad.; c. ♀ juv. sk. New Ireland. Dr. O. Finsch [C.]
(Types of species.)

18. *Munia caniceps*.

Munia nigriceps, juv., *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 393 (1876).

Munia caniceps, *Salvad. Ann. Mus. Genov.* ix. p. 38 (1876); *Sharpe, Linn. Soc. Journ., Zool.* xiv. p. 688 (1878); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 289 (1879); *id. op. cit.* iv. p. 100 (1879).

Donacicola caniceps, *Salvad. Ann. Mus. Genov.* xvi. p. 192 (1880); *id. Orn. Papuasias etc.* ii. p. 439 (1881).

Adult. General colour above dark chocolate-brown, including the wings; lower back, rump, and upper tail-coverts bright golden orange, including the two middle tail-feathers, the latter with dark-brown centres; remainder of tail-feathers blackish, edged with golden; head and neck all round, including the throat, light ashy or pearly grey; fore neck and breast as well as the sides of the body smoky brown; centre of breast, abdomen, thighs, and under tail-coverts black; under wing-coverts light tawny buff: "bill and feet black or dark ashy; iris black" (*D'Albertis*). Total length 3·5 inches, culmen 0·4, wing 1·95, tail 1·2, tarsus 0·6.

Hab. South-eastern New Guinea.

a. Ad. sk. Port Moresby. R. B. Sharpe, Esq. [P.]

19. *Munia flaviprymna*.

Donacola flaviprymna, *Gould, P. Z. S.* 1845, p. 80; *id. B. Austr.* fol. iii. pl. 96 (1848); *Reichenb. Vög. Neuhol.* p. 88, no 397 (1850); *Bp. Consp. Av.* i. p. 453 (1850); *Reichenb. Singv.* p. 27, pl. viii. figs. 60, 61 (1862).

Amadina flaviprymna, *Gray, Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 54, no. 6757 (1870).

Dermophrys flaviprymna, *Cab. Mus. Hein.* Th. i. p. 174, note (1850).

Munia flaviprymna, Gould, *Handb. B. Austr.* i. p. 428 (1865);
Ramsay, Proc. Linn. Soc. N. S. W. ii. p. 87 (1878); *id. Tab. List Austr. B.* p. 10 (1888).

Adult male. Chestnut-brown; upper tail-coverts golden ochre; tail-feathers brown, with straw-coloured margins; scapulars and wing-coverts chestnut-brown like the back; quills dusky brown, externally edged with chestnut; head all round hoary grey, whiter on the throat; under surface of body creamy buff, tinged with fawn-colour on the breast; thighs brown, spotted with white; under tail-coverts black; under wing-coverts and quill-lining isabelline buff: "iris dark brown" (*J. R. Elsey, MSS.*). Total length 4·3 inches, culmen 0·5, wing 2·2, tail 1·35, tarsus 0·6.

Hab. Northern Australia, from Port Essington to the Victoria River.

a. Ad. sk.

N.W. Australia.

J. R. Elsey, Esq. [P.].

20. *Munia pallida*.

Munia pallida, Wall. *P. Z. S.* 1863, pp. 486, 495.

Donacola pallida, Finsch, *Neu-Guinea*, p. 175 (1865).

Amadina pallida, Gray, *Hand-l. B.* ii. p. 54, no. 6765 (1870).

Adult male. Light brown, with maroon on the rump; the head all round, throat, and chest white, suffused with a slight brown shade, the sides of the fore neck and chest rather pearly grey; breast and abdomen bright tawny buff; the under tail-coverts chestnut; no black on the under surface: "bill and feet light blue; iris dark" (*A. R. Wallace*). Total length 4·2 inches, culmen 0·5, wing 2·1, tail 1·15, tarsus 0·6.

Adult female. Similar to the male but paler in colour. Total length 3·9 inches, culmen 0·45, wing 2, tail 1·25, tarsus 0·6.

Hab. Lombock and Flores.

a, b. ♂ ♀ ad.; c. Juv. sk.

Lombock.

Wallace Coll.
 (Types of species.)

d. ♂ ad., e. Juv. sk.

Lombock (*A. R. Wallace*).

Gould Coll.

- Amadina lineoventer*, Hay, J. A. S. B. xiv. p. 554, note (1845).
Munia punctularia, Gray, Cat. Mamm. etc. Nepal pres. Hodgs. p. 146 (1846).
Amadina punctularia, Blyth, J. A. S. B. xv. pp. 37, 285 (1846); Gray, Gen. B. ii. p. 270 (1849).
Munia undulata, Blyth, Cat. B. Mus. As. Soc. p. 117 (1849); Horsf. & Moore, Cat. B. Mus. E.I. Co. ii. p. 606 (1856); Jerd. B. Ind. ii. p. 354 (1863); Holdsw. P. Z. S. 1872, p. 464.
Uroloncha punctulata, Cab. Mus. Hein. i. p. 175 (1850).
Amadina undulata, Kelaart, Prodr. Cat. p. 125 (1852); Layard, Ann. & Mag. Nat. Hist. xiii. p. 258 (1854).
Amadina punctulata, Gray, Hand-l. B. ii. p. 56, no. 6779 (1870); Hume, Str. F. 1879, p. 107; Scully, t. c. p. 332; Vidal, Str. F. ix. p. 71 (1880); Reid, Str. F. x. p. 55 (1881); Davidson, t. c. p. 312 (1882); Davison, t. c. p. 402 (1883); McGregor, t. c. p. 439 (1887); Taylor, t. c. p. 463 (1887).
Oxyerca punctulata, Hume, Nests & Eggs Ind. B. p. 444 (1873).
Munia punctulata, Hume, Str. F. ii. p. 481 (1874); Fairbank, Str. F. 1876, p. 260, 1877, p. 408; Davidson & Wend. Str. F. vii. p. 85 (1878); Ball, t. c. p. 222; Cripps, t. c. p. 293.
Lonchura punctulata, Adams, Str. F. 1873, p. 387; Ball, Str. F. 1874, p. 420; Hume, Str. F. 1875, p. 156; Butler, t. c. p. 459.

Adult male. General colour above warm chocolate-brown, with narrow whitish shaft-lines; the lower back waved with dusky-brown cross bars; rump and upper tail-coverts straw-yellow, with a golden gloss; tail-feathers dusky brown, glossed externally with straw-yellow; lesser and median wing-coverts like the back, as also the inner secondaries, all showing white shaft-lines; greater coverts a little brighter rufous than the back; quills dusky brown, externally bright rufous; head vinous chestnut, with feebly indicated shaft-lines; sides of face and throat deep vinous chestnut; sides of neck paler, with narrow whitish shaft-lines; remainder of under surface of body thickly mottled with white spots, all the feathers being barred and edged with chestnut on the breast and with blackish on the sides of the body; thighs ashy brown, with dusky cross bars; centre of breast, abdomen, and under tail-coverts white, the latter with a buffish tinge; under wing-coverts buff, with a few dusky cross bars; the edge of the wing mottled with white; quills dusky below, ashy fulvous along the inner web: "bill black; legs and feet lavender" (*A. O. Hume, MSS.*) Total length 4.4 inches, culmen 0.45, wing 2.25, tail 1.65, tarsus 0.6.

Adult female. Similar to the male in colour. Total length 4.5 inches, culmen 0.45, wing 2.15, tail 1.75, tarsus 0.6.

Young. Nearly uniform reddish brown; upper tail-coverts more yellowish brown; wing-coverts like the back, the greater series and the outer aspect of the quills ruddy brown, the primaries inclining to chestnut on the outer web; tail-feathers brown, externally ruddy brown, the centre ones washed with yellowish brown; crown of head and sides of face like the back; under surface of body deep ochreous or sandy brown, the centre of the breast, abdomen, and under tail-coverts white: "bill black; legs dull lavender; iris brown; orbits bluish slate" (*R. G. Wardlaw Ramsay*).

Young birds remain in their uniform plumage from September to

January without any sign of change; but in the latter month signs of moulting can be perceived, and in nearly every month from January to August the young birds are putting on the adult plumage. The back of the freshly moulted young bird is almost without stripes; but white shaft-lines are very evident on the rump.

The adults appear to have their best plumage in June and July, the freshly moulted feathers having indistinct pale fringes on the back; the white shaft-lines to the feathers are often very faintly indicated and are sometimes absent altogether from the back, though the feathers of the rump generally have some white-centred spots or streaks. During the nesting-season the plumage becomes remarkably abraded, especially visible in individuals procured from January to March, when they begin to moult.

The feathers of the rump are blackish brown, tipped with pale yellowish, before which is a bar of blackish brown, which is again preceded by an ashy bar, in the centre of which the white shaft-line forms a diamond-shaped spot. The yellow colour increases towards the upper tail-coverts, which are conspicuously golden or deep straw-yellow, and this colour pervades the tail.



Feather from lower back of *M. punctulata* (enlarged).

Hab. The greater part of India and Ceylon, ranging eastwards into Assam and Cachar, where the range coalesces with that of *M. subundulata*.

a. ♀ ad. sk.

Mount Abu, Sept. 27 (*Dr. G. Hume Coll.*
King).

b. Ad. sk.

Mount Abu.

Colonel E. A.
Butler 'C 1

| | | |
|---|--|-----------------|
| <i>e'</i> . ♀ juv. sk. | Etawah, Jan. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>f'</i> , <i>g'</i> . Ad. et juv. sk. | Sarun district, March (<i>R. M. Adam</i>). | Hume Coll. |
| <i>h'</i> - <i>I'</i> . ♂; <i>m'</i> , <i>n'</i> . ♀ ad. sk. | Futtehgurh district, July (<i>A. Anderson</i>). | Seebohm Coll. |
| <i>o'</i> , <i>p'</i> , <i>q'</i> . Ad.; <i>r'</i> , <i>s'</i> , <i>t'</i> . Juv. sk. | Nepal. | Hodgson Coll. |
| <i>u'</i> , <i>v'</i> . Ad.; <i>w'</i> , <i>x'</i> . Imm. sk. | Nepal (<i>B. H. Hodgson</i>). | India Museum. |
| <i>y'</i> , <i>z'</i> . Ad.; <i>a'</i> . Imm. sk. | Nepal Valley, May, Aug. (<i>J. Scully</i>). | Hume Coll. |
| <i>b'</i> . Ad. sk. | Mogulserai, Oude, Sept. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>c'</i> . Ad. sk. | Behar. | Hodgson Coll. |
| <i>d'</i> - <i>g'</i> . Ad.; <i>h'</i> . Juv. sk. | Native Sikhim, March, June, Oct. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>i'</i> - <i>o'</i> . Ad.; <i>p'</i> - <i>s'</i> . Juv. sk. | Sikhim, June, July, Oct., Nov. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>t'</i> , <i>u'</i> . Ad.; <i>v'</i> , <i>w'</i> , <i>x'</i> . Juv. sk. | Sikhim. | Seebohm Coll. |
| <i>y'</i> , <i>z'</i> . Ad. et juv. sk. | Darjiling. | Hume Coll. |
| <i>a'</i> - <i>d'</i> . Ad.; <i>e'</i> - <i>g'</i> . Juv. sk. | Bhotan Doars, Jan. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>h'</i> . Ad. sk. | Assam (<i>McClelland</i>). | India Museum. |
| <i>i'</i> - <i>v'</i> . ♂ ♀ ad. et juv. sk. | Shillong, July, Sept.-Dec. (<i>J. Cockburn</i>). | Hume Coll. |
| <i>w'</i> . Ad. sk. | Shillong, July (<i>A. W. Chennell</i>). | Tweeddale Coll. |
| <i>x'</i> . Ad. sk. | Cachar, July 3 (<i>J. Inglis</i>). | Hume Coll. |
| <i>y'</i> . Ad. sk. | Dacca. | Hume Coll. |
| <i>z'</i> , <i>a'</i> . Ad. sk. | Patna, Oct. 8 (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>b'</i> , <i>c'</i> , <i>d'</i> . Ad. sk. | Dinapur (<i>Stackhouse Pinwill</i>). | Tweeddale Coll. |
| <i>e'</i> . Ad. sk. | Saugor. | Hume Coll. |
| <i>f'</i> . Ad. sk. | Raipur. | Hume Coll. |
| <i>g'</i> , <i>h'</i> . ♂ ad.; <i>i'</i> , <i>k'</i> . ♀ juv. sk. | Maunbhoom, Jan., July (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| <i>l'</i> . ♂ ad. sk. | Godavery Valley, Dec. (<i>W. T. Blanford</i>). | Hume Coll. |
| <i>m'</i> . ♀ juv. sk. | Khandeish, April (<i>J. Davidson</i>). | Hume Coll. |
| <i>n'</i> . Ad. sk. | Deccan (<i>Col. Sykes</i>). | India Museum. |
| <i>o'</i> . Ad. sk. | Matheran, Bombay, Nov. 1. | Hume Coll. |
| <i>p'</i> . ♂ ad. sk. | Belgaum, March 17 (<i>E. A. Butler</i>). | Hume Coll. |
| <i>q'</i> . Ad. sk. | Mysore (<i>F. Day</i>). | India Museum. |
| <i>r'</i> . Ad. sk. | Madras. | Gould Coll. |
| <i>s'</i> , <i>t'</i> , <i>u'</i> . Ad. sk. | Madras (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>v'</i> , <i>w'</i> . ♂ ♀ ad. sk. | Slope of Nilghiri Hills, July. | Hume Coll. |
| <i>x'</i> , <i>y'</i> . ♀ ad.; <i>z'</i> , <i>a'</i> . ♂ ♀ juv. sk. | Ootacamund, March, April (<i>W. Davison</i>). | Hume Coll. |
| <i>b'</i> , <i>c'</i> . Ad. et juv. sk. | Coonoor, March (<i>F. Day</i>). | Hume Coll. |
| <i>d'</i> , <i>e'</i> , <i>f'</i> . Ad.; <i>g'</i> , <i>h'</i> , <i>i'</i> , <i>k'</i> . Juv. sk. | Coonoor, Sept., Oct. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>l'</i> . Ad. sk. | Lower Palani Hills, June 17 (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>m'</i> . ♀ ad. sk. | Lower Palani Hills, June 12 (<i>S. B. F.</i>). | Hume Coll. |

| | | |
|---|---------------------------|-------------------|
| n ^o . Ad. sk. | Anjango, Travancore, Dec. | Hume Coll. |
| o ^o . Ad. sk. | Ceylon. | T. Thwaites, Esq. |
| | | [C.]. |
| p ^o . ♀ ad. sk. | Cotta, Ceylon, March 15. | Colonel V. Legge |
| | | [P.]. |
| q ^o , r ^o , s ^o . Ad.; t ^o ,
u ^o . Juv. sk. | Ceylon (Nevill). | Tweeddale Coll. |
| v ^o . ♂; w ^o , x ^o . ♀
ad. sk. | Ceylon, Nov. (W. Hart). | Hume Coll. |

Subsp. a. *Munia subundulata*.

Munia punctularia (nec Gm.), Schomb. *Ibis*, 1864, p. 263; Blyth & Wald. *B. Burm.* p. 93 (1875); Anders. *Zool. Exped. Yun-nan*, p. 599 (1878).

Munia subundulata, Godwin-Austen, *P. Z. S.* 1874, p. 48; Hume, *Str. F.* iii. p. 398 (1875); Oates, *Str. F.* v. p. 162.

Munia superstriata, Hume, *Str. F.* ii. p. 481, note (1874); id. & Davison, *Str. F.* vi. p. 402 (1878).

Munia inglisi, Hume, *Str. F.* v. p. 89 (1877).

Amadina subundulata, Hume, *Str. F.* viii. p. 107 (1879); id. *Str. F.* xi. p. 272 (1888).

Amadina superstriata, Hume, *t. c.* p. 107; Oates, *Str. F.* x. p. 232 (1882).

Amadina inglisi, Hume, *t. c.* p. 107.

Amadina punctulata (nec L.), Oates, *Handb. B. Brit. Burm.* i. p. 368 (1883).

Adult. The characters which separate this race from *M. punctulata* are extremely slight. They consist in the more olive-yellow shade of the rump, upper tail-coverts, and tail, and the generally more ashy black of the flank-barring, which, moreover, is not so strongly pronounced as in *M. punctulata*. On the rump the feathers have not the second subterminal dusky bar which is seen in the latter species.

extended in *M. subundulata*. In Pegu the birds have a great deal more yellow on the rump and tail, and show a decided approach to *M. punctulata*; but the chestnut on the throat is still restricted and the bars on the flanks are narrow.

Hab. From Cachar to Manipur, Burmah, and Tenasserim, eastwards to Cochin China.

| | | |
|--|--|--|
| <i>a, b.</i> ♂ ad. ; <i>c, d,</i>
<i>e, f.</i> Imm. sk. | Dibrughur, Assam, May, July,
Oct. (<i>J. R. Cripps</i>). | Hume Coll. |
| <i>g-n.</i> ♂ ♀ ad. ; <i>o.</i>
Juv. sk. | Cachar, March, April, July,
Sept., Oct. (<i>J. Inglis</i>). | Hume Coll.
(Types of <i>M. inglisi</i> .) |
| <i>p.</i> ♂ ad. sk. | Cachar, March (<i>J. Inglis</i>). | Forbes Coll. |
| <i>q, r.</i> Ad. sk. | Manipur (<i>H. H. Godwin-Austen</i>). | Tweeddale Coll. |
| <i>s-y.</i> ♂ ad. et juv.
sk. ; <i>z-g'.</i> ♀ ad.
et juv. sk. | Manipur, Feb.-April (<i>A. O. H.</i>). | Hume Coll. |
| <i>h', i', k'.</i> ♂ ad. et
juv. ; <i>l'-p'.</i> ♀ ad.
et juv. sk. | Tonghoo, Feb., April, May, Oct.
(<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>q'.</i> Ad. sk. | Tonghoo (<i>Col. Lloyd</i>). | Tweeddale Coll. |
| <i>r'.</i> Ad. sk. | Rangoon, June (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>s', t'.</i> Ad. et juv.
sk. | Bassein, Pegu. | Hume Coll. |
| <i>u', v', w'.</i> ♀ ad. sk. | Pegu, July, Aug. | Oates Coll. |
| <i>x', y'.</i> ♂ ♀ ad. sk. | Pegu, Aug. | Forbes Coll. |
| <i>z'.</i> ♀ ad. sk. | Kaukaryit, Tenasserim, Sept. 12
(<i>J. Darling</i>). | Hume Coll. |
| <i>a'', b''.</i> ♂ ad. sk. | Schouay Goon, Salween River,
Aug. 8 (<i>R. C. Bearan</i>). | Tweeddale Coll. |
| <i>c''.</i> ♂ ad. ; <i>d''-h''.</i>
♀ ad. et juv. sk. | Moulmein, Dec. and Jan. (<i>W. D.</i>
& <i>J. D.</i>). | Hume Coll. |
| <i>i'', k''.</i> ♂ ad. sk. | Moulmein, Oct., Nov. (<i>C. T.</i>
<i>Bingham</i>). | Hume Coll. |
| <i>l''.</i> ♀ ad. sk. | Tavoy, June 13 (<i>W. Davison</i>). | Hume Coll. |
| <i>m'', n''.</i> ♂ ad. et
juv. sk. | Thatone, March (<i>W. D.</i>). | Hume Coll. |
| <i>o''.</i> ♂ ad. sk. | Momien, Yun-nan, W. China,
June. | Dr. J. Anderson
[C.] |
| <i>p''.</i> Imm. sk. | Saigon, Cochin China, April. | M. E. Pierre [P.] |

Subsp. β. *Munia topela*.

Munia malacca, *Swinh.* *Ibis*, 1860, p. 61 ; *id.* *Ibis*, 1861, p. 45.

Munia topela, *Swinhoe*, *Ibis*, 1863, p. 380 ; *id.* *P. Z. S.* 1870, p. 299 ;
id. *Ibis*, 1870, p. 354 ; *id.* *P. Z. S.* 1871, p. 385 ; *David & Oust.*
Ois. Chine, p. 343 (1877).

Adult male. Similar to *M. punctulata*, but with a shade of ashy olive over the rump and with the upper tail-coverts and tail shaded with pale straw-yellow ; the chestnut throat more restricted than in the Indian species and the barring on the flanks more dusky blackish : "bill deep bluish grey, approaching to black ; tarsi and feet light purplish lead-colour ; iris chocolate-brown" (*Swinhoe*). Total length 4.25 inches, culmen 0.45, wing 2.15, tail 1.55, tarsus 0.55.

The Manipur specimens in the Hume Collection are almost undistinguishable from Chinese and Formosan examples of *M. topela*, and several Burmese and Assamese specimens appear to be intermediate, but the flank-barrings are generally very distinct and broad, and the golden colour on the rump and tail is usually so well-pronounced that they appear to belong as much to *M. punctulata* as to *M. subundulata*. The specimens, however, from these localities form a very strong connecting-link between the two species.

Hab. Southern China, Formosa and Hainan.

| | | |
|---------------------------------------|--|--------------------------------------|
| a. Ad. sk. | Foochow, China (<i>R.</i>
<i>Swinhoe</i>). | Seebohm Coll. |
| b. Ad. sk. | Foochow (<i>R. S.</i>). | Tweeddale Coll. |
| c. Ad. sk. | Foochow (<i>R. S.</i>). | Salvin-Godman Coll. |
| d, e. Ad. et juv.
sk. | Tingchow, Oct. (<i>R. S.</i>). | Seebohm Coll. |
| f, g, h. Ad.; i, k,
l, m. Juv. sk. | Amoy, Jan., April, June, Oct.,
Nov. (<i>R. S.</i>). | Seebohm Coll. (Types
of species.) |
| n, o. Ad. et juv.
sk. | Amoy, June, Nov. (<i>R. S.</i>). | Hume Coll. |
| p. Var. sk. | Shanghai. | Seebohm Coll. |
| q. Ad. sk. | Macao, March 21 (<i>R. S.</i>). | Seebohm Coll. |
| r, s, t, u. Juv. sk. | N. Formosa, March (<i>R. S.</i>). | Seebohm Coll. |
| v, w. Imm. sk. | N. Formosa, March (<i>R. S.</i>). | Tweeddale Coll. |
| x. Ad. sk. | N. Formosa, March (<i>R. S.</i>). | Salvin-Godman Coll. |
| y. Ad. sk. | Takow, Formosa, Dec.
(<i>R. S.</i>) | Forbes Coll. |
| z, a'. Ad. sk. | S.W. Formosa (<i>R. S.</i>). | Seebohm Coll. |
| b', Ad.; c', d'.
Juv. sk. | Hainan, Feb., March (<i>R. S.</i>). | Seebohm Coll. |
| e'. Ad. sk. | Hainan, March (<i>R. S.</i>). | Salvin-Godman Coll. |
| f, g'. Ad. et
imm. sk. | Hainan, Feb. | Consul Swinhoe [C.] |

Subsp. γ . *Munia nisoria*.

Le Grosbec tacheté de Java, *Bris. Orn.* iii. p. 239, pl. xiii. fig. 2 (1760).

Loxia undulata (nec Müll.), *Lath. Ind. Orn.* i. p. 387 (1790).

Fringilla punctularia (nec Gm.), *Horsf. Trans. Linn. Soc.* xiii. p. 161 (1820).

indications of two dusky bars. A good many specimens are nearly uniform on the rump, and I am not sure that these light bars are not signs of age, and they may be absent in the younger birds. Flores examples show more yellow on the tail than those from Malacca.

Hab. Malayan Peninsula; Java.

| | | |
|---|---|----------------------------|
| a. Ad. sk. | Penang (<i>Dr. Cantor</i>). | India Museum. |
| b. ♂; c, d. ♀
ad. et juv. sk. | Klang, Salangore, July, Aug.
(<i>W. Davison</i>). | Hume Coll. |
| e, f. Ad. sk. | Malacca, Aug. (<i>W. D.</i>). | Hume Coll. |
| g. ♀ ad. sk. | Malacca. | Wallace Coll. |
| h. ♀ ad. sk. | Malacca (<i>A. R. Wallace</i>). | Gould Coll. |
| i. ♀ ad. sk. | Pulo Seban, Nov. 9 (<i>W. D.</i>). | Hume Coll. |
| k, l. ♂ ♀ ad. sk. | Nealys, Oct. 15 (<i>W. D.</i>). | Hume Coll. |
| m, n. ♀ ad. sk. | Kuroo, Oct. 29 (<i>W. D.</i>). | Hume Coll. |
| o-v. ♂ ad. et juv.;
w-b'. ♀ ad. et
juv. sk. | Singapore, Aug., Sept.
(<i>W. D.</i>). | Hume Coll. |
| c'-f. ♂ ad. et juv.;
m'-v'. ♀ ad. et
juv. sk. | Singapore Island, Jan., Feb.,
July-Sept., Dec. (<i>W. D.</i>). | Hume Coll. |
| w'-b''. ♂ ad. et
juv. sk. | Mount Sago, Sumatra
(<i>Carl Bock</i>). | Tweeddale Coll. |
| c'', d'. Ad.; e'',
f'', g'. Juv. sk. | Java. | Tweeddale Coll. |
| h'. Juv. sk. | Java (<i>Dr. Horsfield</i>). | India Museum. |
| i'. Ad. sk. | Near Batavia, Nov. 27
(<i>H. O. Forbes</i>). | Forbes Coll. |
| k'. ♂ ad. sk. | Bali. | Wallace Coll. |
| l', m'. Ad. et
juv. sk. | Flores. | Wallace Coll. |
| n'. Ad. sk. | Flores (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| o'. Ad. sk. | Flores (<i>A. R. Wallace</i>). | Gould Coll. |
| p'. Ad. sk. | Flores (<i>A. R. Wallace</i>). | Seebohm Coll. |
| q'. Ad. sk. | E. Timor. | Wallace Coll. |
| r'. Ad. sk. | Makassar, Celebes. | Wallace Coll. |
| s'', t''. ♀ juv. sk. | Island of Larat, Timor Laut,
Aug. 2 (<i>H. O. Forbes</i>). | Tweeddale Coll. |
| u'', v''. ♀ ad. et
juv. sk. | Larat, Aug. 11. | H. O. Forbes, Esq.
[C.] |

Introduced Specimens.

| | | |
|--------------|----------------|--------------------------------|
| w''. Ad. sk. | Mauritius. | Zoological Society. |
| x''. Ad. sk. | Hilo, Owhyhee. | Voy. H.M.S. 'Chal-
lenger.' |

Subsp. δ. *Munia cabanisi*.

Uroloncha jagori (*nec Munia jagori*, *Cab.*), *Cab. J. f. O.* 1866, p. 14.
Oxyerca jagori, *Cab. J. f. O.* 1872, p. 317; *Walden, Trans. Z. S.*
ix. p. 208 (1875); *Tweedd. P. Z. S.* 1877, p. 699.

Adult male. General colour above brown, with slight indications of dusky cross lines, the feathers with narrow and indistinct shaft-lines of whitish; rump and upper tail-coverts more ashy, the latter shaded with straw-yellow; lesser and median wing-coverts brown, with white shaft-lines slightly dilated at the ends; greater coverts

and quills dark brown, externally lighter brown; centre tail-feathers ashy straw-colour, the remainder dark brown, externally dull straw-colour; crown of head darker and more chocolate-brown than the back; the sides of the hinder crown with whitish shaft-lines; lores dusky; feathers round eye and sides of face brown, inclining to hoary whitish on the ear-coverts and hinder cheeks; fore part of cheeks rufous-brown; throat rufous-brown; lower throat, sides of neck, fore neck, and under surface of body mottled, the feathers being ashy whitish with brown edgings, and a brown spear-shaped mark in the centre of the feather; sides of body and flanks more strongly marked, as also the under tail-coverts; under wing-coverts buffy white; quills below dusky, ashy rufous along the inner edge: "bill dull blue; feet blue-grey; iris Indian red" (*A. H. Everett*). Total length 4 inches, culmen 0·4, wing 2·05, tail 1·35, tarsus 0·45.

Adult female. Similar to the male. Total length 3·9 inches, culmen 0·4, wing 2, tail 1·4, tarsus 0·5.

This species differs from *M. nisoria* in having the chestnut throat much more restricted, and in having pale brown markings below as in *M. subundulata* and *M. topela*.

Hab. Confined to the island of Luzon.

| | | |
|--------------------------|---|---------------------|
| a. Ad. sk. | Philippine Islands. | Zoological Society. |
| b, c. ♂ ♀ ad. sk. | Luzon, Feb. 7 (<i>A. B. Meyer</i>). | Tweeddale Coll. |
| d. Imm. sk. | Manila (<i>Maitland-Heriot</i>). | Tweeddale Coll. |
| e. ♀ ad. sk. | Monte Alban, Feb. (<i>A. H. Everett</i>). | Tweeddale Coll. |
| f. ♂ ad.; g, h. Juv. sk. | San Mateo, Feb. (<i>A. H. Everett</i>). | Tweeddale Coll. |

22. *Munia pectoralis*.

Donacola pectoralis, Gould, *B. Austr.* iii. pl. 95 (1848); *Reichenb. Vög. Neuhol.* p. 118 (1850); *Bp. Consp. Av.* i. p. 458 (1850); *Gould, Handb. B. Austr.* i. p. 427 (1865); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 187 (1878).

Amadina pectoralis, Gray, *Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 55, no. 6768 (1870).

Donacola pectoralis, Ramsay, *Proc. Linn. Soc. N. S. W.* i. p. 1091

long ones with broad pale tips of vinaceous, before which is a sub-terminal line of white; under wing-coverts vinaceous, as also the inner edge of the quills: "bill slate-colour; legs dirty pinkish white; iris dark" (*J. R. Elsey*). Total length 4·7 inches, culmen 0·5, wing 2·3, tail 1·4, tarsus 0·6.

Hab. N.W. Australia.

a. ♂ ad. sk.

N.W. Australia.

J. R. Elsey, Esq. [P.].

33. UROLONCHA.

Type.

Lonchura, Sykes (nec Schönk.), P. Z. S. 1832, p. 96 *U. striata*.
Uroloncha, Cab. Mus. Hein. Th. i. p. 173 (1850) *U. molucca*.
Trichogramoptila, Reichenb. Singo. p. 37 (1861) *U. striata*.



Tail of *U. acuticauda*.

Range. Eastern Africa; Indian Peninsula and Ceylon; Indo-Chinese Region and Malayan Peninsula; Sumatra, Java, Borneo, Philippine Islands, Celebes and the Moluccas to New Guinea.

Key to the Species.

a. With a white rump.

a'. With white upper tail-coverts; head grey; back pinkish brown; sides of face and throat grey mottled with white spots and bars *caniceps*, p. 356.

b. With blackish upper tail-coverts.

a''. Back distinctly streaked with white shaft-lines.

a'''. Sides of neck reddish brown, mottled with white spots; chest washed with rufous-brown } *acuticauda*, p. 356.

b'''. Sides of neck like the back; throat and chest entirely uniform black. } *squamicollis*, p. 359.

b''. Back with scarcely any indication of white streaks, or quite uniform.

c'''. With slightly indicated scale-like edges to the feathers of the fore neck. *semistriata*, p. 361.

d'''. No indications of scale-like markings on the fore neck, which is uniform black. . . *fumigata*, p. 361.

- (no. 325); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 510 (1856); *Jerd. B. Ind.* ii. p. 356 (1863); *Godwin-Austen, J. A. S. B.* xxxix. p. 271 (1870); *Hume, Nests & Eggs Ind. B.* p. 450 (1873); *Hume, Str. F.* ii. p. 481 (1874); *Brooks, Str. F.* iii. p. 254 (1875); *Blyth & Wald. B. Burm.* p. 93 (1875); *Hume & Davison, Str. F.* vi. p. 403 (1878); *Kelham, Ibis*, 1881, p. 523.
- Spermestes (Lonchura) acuticauda*, *Hodgs. in Gray's Zool. Miscell.* p. 84 (1844).
- Amadina acuticauda*, *Blyth, J. A. S. B.* xiii. p. 949 (1844); *Strickl. P. Z. S.* 1846, p. 103; *Gray, Hand-l. B.* ii. p. 56, no. 6781 (1870); *Hume, Str. F.* viii. pp. 66, 107 (1879); *Scully, t. c.* p. 333; *Hume, Str. F.* ix. p. 257 (1880); *Oates, Str. F.* x. p. 232 (1882); *id. Handb. B. Brit. Burm.* i. p. 364 (1883); *Hume, Str. F.* xi. p. 273 (1888).
- Munia leuconota*, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 106 (1846).
- Munia molucca*, *Blyth, Cat. B. Mus. As. Soc.* p. 117 (1849).
- Munia muscadina (Mus. Lugd.)*, *Blyth, Ibis*, 1870, p. 172.
- Lonchura acuticauda*, *Hume, Str. F.* iii. p. 156 (1875).
- Spermestes acuticauda*, *Russ, Stubenv.* p. 153 (1879).
- Uroloncha acuticauda*, *A. Müller, J. f. O.* 1882, p. 387.

Adult. General colour above chocolate-brown with distinct shaft-lines of white, these streaks less pronounced on the head, which is blackish brown; across the lower back a broad band of white; rump and upper tail-coverts reddish brown, with white shaft-lines, the upper tail-coverts blackish brown with a slight wash of straw-yellow; wing-coverts blackish, with narrow white shaft-lines; quills blackish brown; tail-feathers black; lores, sides of face, throat, and chest blackish, with a shade of warm chocolate-brown or reddish brown on the sides of the fore neck and chest, the feathers being edged with this colour; ear-coverts and sides of neck tawny rufous, spotted with white; remainder of under surface of body from the chest downwards white, with a few traces of dusky brown mottlings and edgings to the feathers of the sides of the body; flanks, thighs, and under tail-coverts tawny rufous, centred with white shaft-streaks; axillaries light tawny buff; under wing-coverts whitish mottled with brown bases; quills dusky below, tawny buff along the inner webs: "upper mandible blackish, the lower one plumbeous; feet plumbeous; iris dark brown" (*E. W. Oates*). Total length 4.5 inches, culmen 0.4, wing 2.05, tail 1.65, tarsus 0.55.

Young. Differs from the adults in being browner, the head like the back, all the upper parts streaked with white shaft-lines; sides of face, throat, and chest brown, the latter being washed with rufous and mottled with dusky markings; breast white, mottled with dusky brown centres and edgings to the feathers.

Malayan specimens vary somewhat. They are similar to Himalayan examples, but are more scaly in appearance on the throat, the feathers being much more distinctly edged with whitish, the sides of the face being also spotted with whitish. ♂. Total length 4.2 inches, culmen 0.45, wing 1.95, tail 1.45, tarsus 0.55.

♀. Total length 4.1 inches, culmen 0.45, wing 1.9, tail 1.6, tarsus 0.5.

Hab. Himalayas from the neighbourhood of Masuri to Sikhim, through Assam and the Burmese Provinces to Malacca and Sumatra.

| | | |
|---|--|--------------------------------------|
| a. Ad. sk. | Middle range of Hills north of Masuri. | Hume Coll. |
| b. ♂ ad. sk. | Doonda, May 6 (<i>W. E. Brooks</i>). | Hume Coll. |
| c. ♀ ad. sk. | "Kupkote," June 1 (<i>A. Anderson</i>). | Seeborn Coll. |
| d-g. Ad. sk. | Nepal. | Hodgson Coll.
(Types of species.) |
| h-m. Ad.; n. Imm. sk. | Nepal (<i>B. H. Hodgson</i>). | India Museum. |
| o, p, q. Ad. sk. | Nepal Valley, Feb. 17 (<i>Dr. J. Scully</i>). | Hume Coll. |
| r, s, t. Ad. sk. | Native Sikhim, May, July, Aug. (<i>L. Mandelli</i>). | Hume Coll. |
| u. Ad. sk. | Sikhim, Jan. | Seeborn Coll. |
| v-h ¹ . Ad.; i ² . Juv. sk. | Sikhim, Jan., Feb., April, June, Sept., Nov., Dec. (<i>L. Mandelli</i>). | Hume Coll. |
| k ¹ , l ¹ , m ¹ . Ad. sk. | Sikhim. | Hume Coll. |
| n ¹ -u ¹ . Ad. sk. | Near Darjiling, Feb., March, Dec. Assam (<i>McClelland</i>). | Hume Coll. |
| v ¹ . Ad. sk. | Dibrughur, April, May (<i>J. R. Cripps</i>). | India Museum. |
| w ¹ . ♂ ad.; x ¹ , y ¹ . ♀ ad. et juv. sk. | Tippook, April 1 (<i>J. Cockburn</i>). | Hume Coll. |
| z ¹ . ♀ ad. sk. | Sadhyia, April (<i>J. Cockburn</i>). | Hume Coll. |
| a ² . Ad. sk. | Dhollab, April (<i>J. Cockburn</i>). | Hume Coll. |
| b ² -e ² . ♂ ♀ ad. sk. | N. Khasia Hills, Dec., Jan. (<i>A. W. Chennell</i>). | Tweeddale Coll. |
| f ² , g ² . Ad. sk. | Mymensing. | Tweeddale Coll. |
| h ² , i ² . Ad. sk. | Cachar (<i>J. Inglis</i>). | Hume Coll. |
| k ² , l ² . Ad. sk. | Manipur, April, May (<i>A. O. H.</i>). | Hume Coll. |
| m ² , n ² . ♂ ad. sk. | Tippura. | Hume Coll. |
| o ² . Ad. sk. | Akyab, March 21 (<i>J. Armstrong</i>). | Hume Coll. |
| p ² . ♀ ad. sk. | Thayetmyo. | Oates Coll. |
| q ² . Ad. sk. | Pegu, June 19. | Oates Coll. |
| r ² . ♀ ad. sk. | Tonghoo Hills, April (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| s ² . Ad. sk. | Pahpoon, Tenasserim, Jan. (<i>W. Davison</i>). | Hume Coll. |
| t ² . ♂; u ² , v ² . ♀ ad. sk. | Moulmein, Aug. (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| w ² . ♂ ad. sk. | Arch. Isl. Aug. 4 (<i>H. D.</i>). | Hume Coll. |
| x ² . ♀ ad. sk. | | |

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|---|---|-----------------------------|
| p^4, q^4 . ♂ ; r^4 . ♀
ad. sk. | Salang, Feb., March (<i>J. Darling</i>). | Hume Coll. |
| s^4, t^4 . ♂ ♀ ad. sk. | Poungyah, July, Aug. (<i>J. D.</i>). | Hume Coll. |
| u^4 . ♂ ad. sk. | Kwala Kangsar, Perak, April (<i>H. Kelham</i>). | Forbes Coll. |
| v^4-y^4 . ♂ ad.; z^4 -
d^5 . ♀ ad. sk. | Klang, Feb., March (<i>W. D.</i>). | Hume Coll. |
| e^5, f^5 . Ad. sk. | Malacca, Aug. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| g^5, h^5 . Ad. sk. | Malacca, May, Dec. (<i>S. Pinwill</i>). | Tweeddale Coll. |
| i^5 . Ad. sk. | Malacca (<i>Dr. Cantor</i>). | India Museum. |
| k^5 . ♀ ad. sk. | Kuroo, Nov. 2 (<i>W. D.</i>). | Hume Coll. |
| l^5 . ♀ ad. sk. | Johore, Aug. 18 (<i>W. D.</i>). | Hume Coll. |
| m^5-u^5 . ♂ ; v^5, w^5 .
♀ ad. et juv. sk. | Singapore, July, Sept. (<i>W. D.</i>). | Hume Coll. |
| x^5 . ♀ ad. sk. | Sumatra, Oct. 28. | H. O. Forbes,
Esq. [P.]. |

3. *Uroloncha squamicollis*.

Munia molucca (*nec L.*), *Swinhoe, Ibis*, 1860, p. 61.

Munia acuticauda (*nec Hodgs.*), *Swinh. Ibis*, 1863, p. 379; *id. Ibis*, 1870, p. 354; *id. P. Z. S.* 1871, p. 385; *id. Ibis*, 1873, p. 371; *David & Oustal. Ois. Chine*, p. 343 (1878).

Adult male. Similar to *U. acuticauda*, but distinguished by the more scaly appearance of the throat and fore neck, these parts being light rufous like the sides of the face, with indistinct whitish shaft-stripes and margins to the feathers: "bill brown, with the lower mandible tinged with bluish; feet leaden grey; iris hazel-brown" (*A. David*). Total length 3·8 inches, culmen 0·45, wing 2, tail 1·75, tarsus 0·55.

Adult female. Similar to the male. Total length 3·6 inches, culmen 0·45, wing 2, tail 1·35, tarsus 0·5.

Hab. China; Formosa and Hainan.

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|-----------------------|---|-----------------|
| a, b . Ad. sk. | China (<i>Tuckett</i>). | Tweeddale Coll. |
| c, d . ♂ ♀ ad. sk. | Szechuen, May 4 (<i>R. Swinhoe</i>). | Seebohm Coll. |
| e, f, g . Juv. sk. | Shanghai, July, Nov. (<i>R. S.</i>). | Seebohm Coll. |
| h . ♀ ad. sk. | Shanghai, March (<i>Capt. Ince</i>). | Gould Coll. |
| i . ♂ ad. sk. | Ningpo, March (<i>R. S.</i>). | Seebohm Coll. |
| k, l, m . ad. sk. | Foochow, Feb. (<i>R. S.</i>). | Seebohm Coll. |
| n . ♀ ad. sk. | Canton, April 11 (<i>R. S.</i>). | Seebohm Coll. |
| o, p . Ad. sk. | Whampoa, April 17 (<i>R. S.</i>). | Seebohm Coll. |
| $q-v$. Ad. sk. | Formosa, March, April
(<i>R. S.</i>). | Seebohm Coll. |
| w . Ad. sk. | Formosa, March (<i>R. S.</i>). | Hume Coll. |
| x, y . Ad. sk. | N. Formosa, March, April
(<i>R. S.</i>). | Tweeddale Coll. |
| z, a' . ♂ ♀ ad. sk. | Hainan, Feb. (<i>R. S.</i>). | Seebohm Coll. |

4. *Uroloncha striata*.

Le Gros-bec de l'Isle de Bourbon, *Briss. Orn.* iii. p. 243, pl. xiii. fig. 4 (1760); *Daubent. Pl. Enl.* iv. pl. 153. fig. 1.

Loxia striata, *Linn. Syst. Nat.* i. p. 303 (1766); *Gm. Syst. Nat.* i. p. 861 (1788).

Striated Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 142 (1783).

- Fringilla leuconota*, Temm. *Pl. Col.* iii. pl. 500. fig. 1 (1830).
Lonchura leuconota, Sykes, *P. Z. S.* 1832, p. 95.
Spermestes leuconota, Jerd. *Madr. Journ.* xi. p. 27 (1840).
Amadina striata, Blyth, *J. A. S. Beng.* xiii. p. 949 (1844), xv. p. 36 (1848); Gray, *Gen. B.* ii. p. 370 (1849); Kelaart, *Prodr.* p. 126 (1852); Layard, *Ann. & Mag. Nat. Hist.* (2) xiii. p. 258 (1854); Horsf. & Moore, *Cat. B. E. I. Co. Mus.* ii. p. 511 (1856); Gray, *Hand-l. B.* ii. p. 56, no. 6786 (1870); Hume, *Str. F.* 1879, p. 107; Butler, *Cat. B. S. Bomb. Pres.* p. 61 (1880); Vidal, *Str. F.* ix. p. 72 (1880); Oates, *Handb. B. Brit. Burm.* i. p. 365 (1883); Terry, *Str. F.* x. p. 478 (1887).
Munia striata, Blyth, *Cat. B. Mus. As. Soc.* p. 117 (1847); Bp. *Consp. Av.* i. p. 453 (1850); Jerd. *B. Ind.* ii. p. 356 (1863); Holdsw. *P. Z. S.* 1872, p. 464; Hume, *Nests & Eggs Ind. B.* p. 448 (1873); Wald. *Ibis*, 1874, p. 144; Fairb. *Str. F.* iv. p. 260 (1876); Ball, *Str. F.* vii. p. 222 (1878); Legge, *Birds of Ceylon*, p. 660 (1879).
Uroloncha striata, Cab. *Mus. Hein. Th.* i. p. 173 (1850).
Trichogramoptila striata, Reichenb. *Singv.* p. 37, Taf. xiii. figs. 116-117 (1861); Ball, *Str. F.* ii. p. 420 (1874).
Munia leuconota, Blyth & Wald. *B. Burm.* p. 98 (1875).
Spermestes striata, Russ, *Stubenv.* p. 151 (1879).

Adult. Sooty brown, distinctly streaked with white shaft-lines, the dorsal feathers pale at the ends with a faint dusky subterminal bar; wing-coverts a little darker than the back, with similar whitish shaft-lines; quills blackish brown, the inner ones with white shaft-lines; rump white; upper tail-coverts blackish with brown edges and with white shaft-lines; tail-feathers black; head blacker than the back, the nape and hind neck similarly streaked with white shaft-lines, as also the sides of the neck and ear-coverts; forehead, lores, sides of face, throat, and chest black, with very faintly indicated pale shaft-lines on the latter; breast and abdomen white, the lower flanks, thighs, and under tail-coverts dark brown washed with rufous, and having whitish shaft-lines, more distinct on the flanks; axillaries and under wing-coverts buffy white, the edge of the wing mottled with black; quills below blackish, buffy white along the inner web: "bill, upper mandible blackish leaden, the lower one bluish with dark tip; legs and feet black, or dark; underparts brown or reddish

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|---|---|-----------------|
| <i>w.</i> ♂ imm. sk. | Khandala, March 23 (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>x.</i> ♂ ad. sk. | Goa Frontier, April 19 (<i>S. B. F.</i>). | Tweeddale Coll. |
| <i>y, z.</i> ♂ ♀ ad.; <i>a'.</i> ♀ imm. sk. | Madras. | Hume Coll. |
| <i>b', c', d'.</i> Ad. sk. | Madras (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>e'.</i> ♂ ad. sk. | Bangalore, Aug. 3 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>f'.</i> Ad. sk. | Mysore (<i>Dr. F. Day</i>). | India Museum. |
| <i>g', h'.</i> ♂ ♀ ad. sk. | Slope of Nilghiris, March, June. | Hume Coll. |
| <i>i'.</i> Ad.; <i>k'.</i> ♂ imm. sk. | Coonoor, Sept. 14 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>l', m'.</i> Ad. sk. | Coorg. | Tweeddale Coll. |
| <i>n'.</i> Ad. sk. | Malabar. | Tweeddale Coll. |
| <i>o'.</i> Ad. sk. | Malabar. | Forbes Coll. |
| <i>p', q'.</i> Ad. sk. | Ceylon. | Seeböhm Coll. |
| <i>r'.</i> ♀ ad. sk. | Ceylon (<i>H. Nevill</i>). | Tweeddale Coll. |
| <i>s', t'.</i> ♂ ♀ ad. sk. | Cotta, Ceylon, Nov. 16 (<i>Hart</i>). | Hume Coll. |

5. *Uroloncha semistriata*.

Munia semistriata, *Hume, Str. F.* 1874, p. 257.

Amadina semistriata, *Hume, Str. F.* 1879, p. 107.

Adult male (type of species). Similar to *U. striata*, but not nearly so plainly streaked, thereby approaching *U. fumigata*. It differs from both these species, however, in having the fore neck and chest scaly, the feathers of these parts being brown with reddish or whity-brown edges: "bill, upper mandible black, the lower bright leaden blue; legs and feet plumbeous green or greenish horny; iris brown" (*Hume*). Total length 3·7 inches, culmen 0·4, wing 1·9, tail 1·4, tarsus 0·5.

Adult female. Similar to the male. Total length 3·7 inches, culmen 0·4, wing 1·8, tail 1·55, tarsus 0·5.

Hab. Nicobar Islands.

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| <i>a.</i> Ad. sk. | Nicobar Islands. | Tweeddale Coll. |
| <i>b.</i> ♂ ad.; <i>c.</i> ♀ juv. sk. | Nicobar Islands, Jan. 18 (<i>R. J. Wimberley</i>). | Tweeddale Coll. |
| <i>d, e.</i> Ad. sk. | Nicobar Islands. | Hume Coll. |
| <i>f, g, h.</i> ♂; <i>i.</i> ♀ ad. sk. | Camorta, Nicobars, Feb. (<i>W. Davison</i>). | Hume Coll. (Types of species.) |

6. *Uroloncha fumigata*.

Munia fumigata, *Walden, Ann. & Mag. Nat. Hist.* (4) xii. p. 488 (1873); *id. Ibis*, 1874, pp. 144, 145; *Hume, Str. F.* iv. p. 201 (1876).

Munia striata (*nec Linn.*), *Hume, Str. F.* 1874, pp. 257, 497.

Munia nonstriata, *Hume, Str. F.* 1874, p. 257.

Amadina fumigata, *Hume, Str. F.* viii. p. 107 (1879).

Adult male. Similar to *U. striata*, but uniform above, with only the faintest indications of pale shaft-lines; the upper and under

tail-coverts, as well as the thighs and lower flanks, black washed with rufous; sides of neck washed with rufous-brown, but not streaked with whitish: "upper mandible black, the lower one leaden blue; legs and feet plumbeous green or greenish horny; iris reddish brown" (*A. O. Hume*). Total length 4.2 inches, culmen 0.4, wing 1.95, tail 1.5, tarsus 0.45.

Hab. Andaman Islands.

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|---|--|---------------------|
| a, b. Imm. sk. | S. Andamans, Feb. (<i>R. G. Tweeddale Coll.</i>
<i>W. R.</i>). | (Types of species.) |
| c-g. ♂; h-m.
♀ ad. sk. | S. Andaman, March, June,
Oct. (<i>R. J. Wimberley &</i>
<i>R. G. W. R.</i>). | Tweeddale Coll. |
| n, o. ♂ ♀ ad. sk. | S. Andaman, July. | Hume Coll. |
| p. Ad. sk. | Aberdeen, S. Andamans,
Nov. 11 (<i>W. Davison</i>). | Hume Coll. |
| q, r, s. ♂; t, u,
v, w. ♀ ad. sk. | Port Blair, June (<i>W. Davi-</i>
<i>son</i>). | Hume Coll. |
| x-z. ♂ ad. et juv.;
a'-d'. ♀ ad. sk. | Mount Harriet, June, Dec.
(<i>W. Davison</i>). | Hume Coll. |

7. *Uroloncha leucogastra*.

Amadina leucogastra, *Blyth, J. A. S. Beng.* xv. p. 286 (1846); *Gray, Gen. B.* ii. p. 370 (1849); *Hume, Str. F.* 1879, pp. 66, 107, 161; *Oates, Handb. B. Brit. Burm.* i. p. 367 (1883).

♀ *Munia melanictera*, *Blyth, Cat. B. Mus. As. Soc.* p. 117 (1849).

Munia leucogastra, *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 510 (1850); *Jerd. B. Ind.* ii. p. 359 (1863); *Salvad. Ucc. Born.* p. 267 (1874); *Hume, Str. F.* 1875, p. 328; *Davison, Str. F.* 1877, p. 460; *Hume & Davison, Str. F.* iv. p. 402 (1878); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlv. p. 234 (1887).

Munia chrysurus, *Blyth, Ibis*, 1870, p. 172 (*ex MSS. Mus. Lugd.*).

Oxyerca leucogastra, *Tweedd. Ann. & Mag. Nat. Hist.* (4) xi. p. 96 (1877); *id. P. Z. S.* 1878, p. 622.

Adult male. Above brown, streaked with white shaft-lines, the wing-coverts like the back and similarly streaked, as also the secondaries; quills blackish; rump and upper tail-coverts uniform black; tail-feathers blackish, broadly edged with golden- or straw-

yellow on the tail, and the white shaft-streaks almost obsolete; under surface of body as in the adult, but browner.

Hab. Malayan Peninsula, ranging into Southern Tenasserim, Borneo.

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| <i>a, b.</i> ♀ ad. sk. | Choungthanoung, Tenasserim,
Dec. (<i>W. Davison</i>). | Hume Coll. |
| <i>c-s.</i> ♂ ad. et juv.;
<i>t-e.</i> ♀ ad. et
juv. sk. | Bankasoon, Feb., April, May
(<i>W. D.</i>). | Hume Coll. |
| <i>f.</i> ♂; <i>g', h.</i> ♀
ad. sk. | Malewoon, Jan. (<i>W. D.</i>). | Hume Coll. |
| <i>i, k.</i> ♂ ad. sk. | Malewoon, Dec. 29. | Oates Coll. |
| <i>l.</i> ♀ ad. sk. | Salang, March 20 (<i>J. Darling</i>). | Hume Coll. |
| <i>m.</i> ♂ ad. sk. | Klang, Salangore (<i>W. D.</i>). | Hume Coll. |
| <i>n.</i> Ad. sk. | Malacca (<i>S. Pinicill</i>). | Tweeddale Coll. |
| <i>o, p.</i> ♂ ♀ ad. sk. | Malacca. | Wallace Coll. |
| <i>q.</i> ♀ ad. sk. | Malacca (<i>Wallace</i>). | Gould Coll. |
| <i>r, s.</i> ♂ ♀ ad. sk. | Mount Ophir, Malacca, Aug. 14
(<i>R. G. W. R.</i>). | Tweeddale Coll. |

8. *Uroloncha everetti*.

Oxyerca everetti, *Tweedd. Ann. & Mag. Nat. Hist.* (4) xx. p. 98 (1877); *id.* *P. Z. S.* 1877, pp. 699, 764, pl. lxxiii. fig. 2; *id.*, *P. Z. S.* 1878, p. 622; *Sharpe, Ibis*, 1888, p. 202.

Adult male. Very similar to *U. leucogastra*, but more distinctly streaked with white above, and having the sides of the fore neck and chest distinctly chocolate-brown, not blackish: "bill black, lower mandible lead-grey, feet dark grey, iris indian red" (*Everett*). Total length 3.6 inches, culmen 0.5, wing 1.9, tail 1.4, tarsus 0.55.

Adult female. Similar to the male. Total length 4 inches, culmen 0.5, wing 1.95, tail 1.4, tarsus 0.55.

Hab. Philippine Islands.

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| <i>a, b.</i> ♂ ad. sk. | Monte Alban, Luzon, Feb. 1877
(<i>A. H. Everett</i>). | Tweeddale Coll.
(Types of species.) |
| <i>c, d.</i> ♀ ad. sk. | San Mateo, Luzon, Feb. 1877
(<i>A. H. E.</i>). | Tweeddale Coll. |
| <i>e, f.</i> ♂ ♀ ad. sk. | Cebu, March, April (<i>A. H. E.</i>). | Tweeddale Coll. |
| <i>g-k.</i> ♂; <i>l.</i> ♀
ad. sk. | Puerto Princesa, Palawan,
Dec. (<i>A. H. E.</i>). | Tweeddale Coll. |

9. *Uroloncha leucogastroides*.

Fringilla striata (*nec Linn.*), *Horsf. Trans. Linn. Soc.* xiii. p. 101 (1820).

Munia leucogastroides, *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 510 (1856); *Wald. Ibis*, 1874, p. 145; *Tweedd. Ibis*, 1877, p. 318; *Nicholson, Ibis*, 1879, p. 170.

Trichogramoptila melanopygia, *Reichenb. Singr.* pp. 38, 48, Taf. xvii. figs. 153, 154 (1861).

Amadina leucogastroides, *Gray, Hand-l. B.* ii. p. 56, no. 6787 (1870).

Amadina melanopygia, *Gray, Hand-l. B.* ii. p. 56, no. 6788 (1870).

Spermestes melanopygia, *Russ, Stubenv.* p. 152 (1879).

Trichogramoptila leucogastroides, *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliii. p. 105 (1884).

Adult. Similar to *U. striata*, but not so distinctly streaked with white shaft-lines, rather lighter brown, and distinguished at once by the absence of the white rump: "bill, upper mandible black, the lower lead-blue; feet lead-blue; iris vandyke brown" (*A. G. Vorderman*). Total length 4·3 inches, culmen 0·4, wing 2·1, tail 1·5, tarsus 0·55.

Young. Much lighter brown than the adult, with no black on the forehead or face, and only a little on the throat, which is also light brown.

Hab. Java and Sumatra.

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| <i>a, b.</i> Ad. sk. | Java. | India Museum.
(Types of species.)
Tweeddale Coll. |
| <i>c-f.</i> ♂ ; <i>g.</i>
Juv. sk. | Java. | |
| <i>h.</i> Ad. sk. | W. Java (<i>E. C. Burton</i>). | F. Nicholson, Esq.
[P.]
Tweeddale Coll. |
| <i>i, k.</i> Ad. et juv.
sk. | Lamong, Sumatra (<i>E. C. Burton</i>). | |

10. *Uroloncha fuscans*.

Spermestes fuscans, *Cass. Pr. Phil. Acad.* vi. p. 185 (1852).

Fringilla nigerrima, *Cass. Pr. Phil. Acad.* vi. p. 185 (1852).

Fringilla aterrima, *Cass. Pr. Phil. Acad.* vi. p. 185 (1852).

Munia fuscans, *Sci. P. Z. S.* 1863, p. 219; *Salvad. Ucc. Born.* p. 208 (1874); *Sharpe, P. Z. S.* 1879, p. 344; *Brugg. Abhandl. nat. Ver. Bremen*, v. p. 461 (1877); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 234 (1887); *Sharpe, Ibis*, 1889, p. 434.

Amadina fuscans, *Gray, Hand-l. B.* ii. p. 55, no. 6763 (1870).

Adult male. Entirely uniform blackish chocolate, somewhat obscurely mottled with browner centres to the feathers; quills and tail-feathers black: "iris brown" (*Doria*). Total length 4·2 inches, culmen 0·45, wing 2, tail 1·45, tarsus 0·5.

Adult female. Similar to the male. Total length 4·3 inches, culmen 0·45, wing 1·9, tail 1·45, tarsus 0·5.

Hab. Borneo.

Adult (type of species). Nearly uniform chocolate-brown, above and below, with a slight appearance of paler brown stripes on the head; sides of face, sides of neck, fore neck, and breast with scanty narrow whitish shaft-lines; centre of breast and abdomen and under tail-coverts blackish; wing-coverts like the back, with tiny white dots; bastard-wing, primary-coverts, quills, and tail-feathers blackish brown; the inner secondaries like the back, with pale fulvous tips; under wing-coverts and inner lining of quills ochreous buff. Total length 3·9 inches, culmen 0·4, wing 1·95, tail 1·3, tarsus 0·5.

Hab. New Guinea.

a. Ad. sk. New Guinea. Wallace Coll. (Type of species.)

12. *Uroloncha leucosticta*.

Munia leucosticta, *D'Alb. & Salvad. Ann. Mus. Civic. Genov.* xiv. p. 88 (1879); *Reichen. & Schalow, J. f. O.* 1879, p. 327; *Salvad. Ann. Genov.* xvi. p. 191 (1880); *id. Orn. Papuasias*, ii. p. 437 (1881).

Adult. General colour above brown; head dusky, marked with white shaft-lines; back and wing-coverts brownish, with white spots; rump yellowish; upper tail-coverts black; underparts rufous-brown, gradually whitish towards the throat; breast scaled with white; under tail-coverts blackish; quills dusky; under wing-coverts white, uniform with the throat; tail black; bill pearly grey; feet ashy; iris black (*D'Albertis*). Total length 3·9 inches, culmen 0·45, wing 1·95, tail 1·5, tarsus 0·95. (*Salvad.*)

Said to be near *U. tristissima*, but differing in its clearer brown colour, especially below, and by the little white spots on the back and wing-coverts, and by the breast scaled with white markings.

Hab. Fly River, S.E. New Guinea.

13. *Uroloncha pectoralis*.

Spermestes, sp. nov., *Jerd. Madr. Journ.* xiii. p. 171 (1844).

Munia pectoralis, *Jerd. B. Ind.* ii. p. 355 (1863); *Hume, Str. F.* 1875, p. 263, 1876, p. 403.

Amadina pectoralis, *Gray, Hand-l. B.* ii. p. 56, no. 6782 (1870); *Hume, Nests & Eggs Ind. B.* p. 448 (1873); *id. Str. F.* 1879, p. 107; *Butler, Cat. B. S. Bomb. Pres.* p. 61 (1880); *Davison, Str. F.* x. p. 402 (1883); *Terry, t. c.* p. 478 (1887).

Adult male. Above warm chocolate-brown, streaked with narrow buffy-white shaft-lines to the feathers; the head rather darker; rump blackish, with broader shaft-lines of buffy white and broad terminal spots of the same colour; upper tail-coverts straw-yellow; wings and tail-feathers black; lores, feathers round the eye, sides of face, cheeks, throat, and fore neck black; feathers behind the eye, hinder ear-coverts, and sides of neck light chocolate-brown, with the same white shaft-lines as the back; sides of neck and

sides of fore neck light pinkish brown, like the rest of the under surface of the body; the lower abdomen, thighs, and under tail-coverts blackish, with broad central streaks of pinkish brown or whitish; under wing-coverts and axillaries like the breast: "bill, legs, and feet slaty; iris brown" (*Miss Cockburn*). Total length 4.5 inches, culmen 0.5, wing 2.2, tail 1.5, tarsus 0.55.

Adult female. Similar to the male. Total length 4.5 inches, culmen 0.45, wing 2.15, tail 1.6, tarsus 0.55.

Hab. Southern India.

| | | |
|--|---|--------------------------|
| a. ♀ imm. sk. | Peria Forests, Wynaad, May 1, 1881 (<i>W. Davison</i>). | Hume Coll. |
| b-k. ♂ ad. et juv.;
l-o. ♀ ad. sk. | Coonoor, Nilghiris, Sept.-Nov. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| p. ♂ ad. sk. | Coonoor, Nov. 9 (<i>W. D.</i>). | W. Davison, Esq.
[P.] |
| q, r. ♂ ad. sk. | Slope of Nilghiris, June. | Hume Coll. |
| s. ♀ ad. sk. | Slope of Nilghiris, June. | Forbes Coll. |
| t-b'. ♂; c'-r'. ♀
ad.; k'. ♀ juv. sk. | Kotagherry, Nilghiris, July (<i>Miss Cockburn</i>). | Hume Coll. |
| f. Ad. sk. | Malabar. | Tweeddale Coll. |
| m'-p'. Ad. sk. | Mynall, Travancore, July, Aug. | F. Bourdillon [C.] |
| q', r'. Juv. sk. | Mynall, May (<i>F. Bourdillon</i>). | Hume Coll. |

14. *Uroloncha kelaarti*.

- Munia pectoralis* (*nec Jerd.*), *Blyth, J. A. S. B.* xx. p. 178 (1851).
Amadina pectoralis (*nec Jerd.*), *Kelaart, Prodr.* p. 128 (1852);
Layard, Ann. & Mag. Nat. Hist. (2) xiii. p. 258 (1854).
Munia kelaartii, *Blyth, MSS.*; *Jerd. B. Ind.* ii. p. 356 (1863);
Blyth, Ibis, 1867, p. 299; *Holdsw. P. Z. S.* 1872, p. 464; *Hume, Str. F.* vii. p. 410 (1878); *Legge, Birds of Ceylon*, p. 650, pl. xxvii. fig. 2 (1879).
Amadina kelaartii, *Gray, Hand-l. B.* ii. p. 56, no. 6780 (1870);
Hume, Str. F. viii. p. 107 (1879).

Adult male. Similar to *U. pectoralis*, but distinguished by the mottled abdomen, the feathers being white barred with black, the bars somewhat irregular and in the form of lateral notches; the sides of the neck and sides of breast pale pinkish brown above; bill

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| <i>a, b.</i> Ad. et juv. sk. | Ceylon. | Dr. Kelaart [P.] |
| <i>c, d.</i> Ad. et juv. sk. | Ceylon. | T. Thwaites, Esq. [C.] |
| <i>e-h.</i> ♂ ad. et juv. ; | Nuwara Eliya, Aug., | Tweeddale Coll. |
| <i>i.</i> ♀ ad. sk. | Oct. (<i>E. W. H. Holdsworth</i>). | |
| <i>k, l.</i> ♂ ♀ ad. sk. | Ceylon, Feb., Aug. (<i>W. V. Legge</i>). | Seeböhm Coll. |

15. *Uroloncha molucca*.

Le Gros-bec des Moluques, *Briss. Orn.* iii. p. 241, pl. 13. fig. 3 (1760); *Daubent. Pl. Enl.* iv. pl. 139. fig. 2 (*nec* fig. 1)*.

Loxia molucca, *Linn. Syst. Nat.* i. p. 302 (1766).

Molucca Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 141 (1783).

Loxia punctulata, ♂ (*nec* *L.*), *Bodd. Tabl. Pl. Enl.* p. 9 (1783).

Loxia variegata, *Vieill. Ois. Chant.* p. 82, pl. 51 (1805).

Coccothraustes variegata, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 544 (1817).

Amadina molucca, *Gray, Gen. B.* ii. p. 370 (1849).

Amadina variegata, *Gray, Gen. B.* ii. p. 370 (1840); *id. Hand-l. B.* ii. p. 56, no. 6784 (1870).

Munia molucca, *Blyth, Cat. B. Mus. As. Soc.* App. p. 323 (*nec* p. 117, = *M. acuticauda*).

Munia molucca, *Bp. Consp.* i. p. 453 (1850); *Reichenb. Singv.* p. 38, Taf. xiv. figs. 118-120 (1863); *Wall. Ibis*, 1863, p. 33; *Salvad. Ann. Mus. Civic. Genov.* viii. p. 380 (1876), xiv. p. 656 (1879), xvi. p. 191 (1880); *id. Orn. Papuasias etc.* ii. p. 434 (1881).

Uroloncha molucca, *Cab. Mus. Hein.* Th. i. p. 173, note (1850).

Amadina molucca, *Gray, P. Z. S.* 1860, p. 355; *Finsch, Neu-Guinea*, p. 176 (1865); *Gray, Hand-l. B.* ii. p. 54, no. 6753 (1870).

Amadina moluccensis, *Rosenb. Reist. naar Geelvinkb.* p. 7 (1875).

Adult male. Above light brown; rump and upper tail-coverts white, crossed with wavy lines of blackish brown, rather broad; the long upper tail-coverts black; scapulars and wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish brown, the inner secondaries washed with light brown; tail-feathers blackish; crown of head black, becoming browner on the occiput and nape; sides of face, throat, and fore neck black; remainder of under surface white, crossed with wavy lines of black; under wing-coverts buffy white; quills dusky brown below, fulvescent along the inner web. Total length 3·9 inches, culmen 0·4, wing 1·9, tail 1·35, tarsus 0·45.

Adult female. Similar to the male in colour. Total length 3·8 inches, culmen 0·4, wing 1·9, tail 1·35, tarsus 0·5.

Young. Browner than the adults, the head a little darker brown, but not blackish; sides of face and throat dingy brown, slightly vermiculated with white; rump whitish, slightly vermiculated with black; under surface dull fulvous brown, with a few dusky cross lines.

Hab. Molucca Islands.

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|--------------------------|------------------------------------|---------------|
| <i>a, b.</i> Ad. sk. | Batchian. | Wallace Coll. |
| <i>c.</i> Ad. sk. | Batchian (<i>A. R. Wallace</i>). | Gould Coll. |
| <i>d, e.</i> ♂ ♀ ad. sk. | Ternate. | Wallace Coll. |

* As Count Salvadori has shown, Daubenton's figures are numbered wrongly.

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|---|---|-----------------|
| <i>f.</i> ♂ ad. ; <i>g.</i> ♀
juv. sk. | Bourou. | Wallace Coll. |
| <i>A.</i> ♂ ad. sk. | Amboina, Feb. 13, 1896
(<i>Hoedt</i>). | Tweeddale Coll. |
| <i>i.</i> ♀ juv. sk. | N. Ceram. | Wallace Coll. |

Subsp. α. *Uroloncha propinqua*.

Munia molucca (*nec L.*), *Wall. P. Z. S.* 1863, p. 486; *Walden, Trans. Z. S.* viii. p. 73 (1872); *Meyer, Ibis*, 1874, p. 132.

The adults from Flores are almost entirely white on the sides of the breast, so as to form an indistinct collar, without black markings. They belong apparently to a distinct race (*U. propinqua*, *nob.*). The Celebean birds appear to be intermediate, being more sparsely barred than the Moluccan birds, but not so devoid of bars as in the birds from Flores. I have not been able, however, to examine many adult birds from Celebes.

Hab. Celebes; Flores.

| | | |
|--|----------------------------------|-----------------|
| <i>a.</i> Ad. sk. | Flores. | Wallace Coll. |
| <i>b.</i> Ad. sk. | Flores (<i>A. R. Wallace</i>). | Forbes Coll. |
| <i>c, d.</i> Ad. sk. | Flores (<i>A. R. Wallace</i>). | Seeborn Coll. |
| <i>e.</i> Ad. sk. | Flores (<i>A. R. Wallace</i>). | Gould Coll. |
| <i>f.</i> Ad. sk. | Flores (<i>A. R. Wallace</i>). | Tweeddale Coll. |
| <i>g.</i> Ad. sk. | Menado, Celebes. | Tweeddale Coll. |
| <i>h.</i> ♂ ad. ; <i>i, k.</i>
♂ ♀ juv. sk. | Makassar. | Wallace Coll. |

34. AIDEMOSYNE.

Type.

Aidemosyne, *Reichenb. Sing.* p. 14 (1861) *A. modesta*.
Euodice, *Reichenb. t. c.* p. 46 (1861) *A. cantans*.

Hab. Australia. Indian Peninsula and Ceylon. South Arabia. Senegambia to North-east Africa, extending into East Africa.

Key to the Species.

- a.* Chin black, followed by a barred throat and chest;
forehead dark crimson; outer tail-feathers tipped

- Estrilda modesta*, Gray, *Hand-l. B.* ii. p. 52, no. 6274 (1870);
Diggles, Orn. Austr. pl. 48. fig. 5 (1870).
Estrilda (*Aidemosyne*) *modesta*, Ramsay, *Proc. Linn. Soc. N. S. W.*
 ii. p. 286 (1878); *id. Tab. List Austr. B.* p. 10 (1888).

Adult male. General colour above brown, the rump with broad white bars at the ends of the feathers; upper tail-coverts more dusky, and with broad white spots at the ends; wing-coverts brown like the back, but minutely spotted with white at the ends; bastard-wing and primary-coverts brown; quills dusky brown, externally light brown like the back, the inner secondaries spotted with white at the ends; tail-feathers blackish, the outer ones with a white spot at the end; crown of head dark brown, the forehead and sinciput dull vinous crimson; a black loreal spot; feathers above and behind the eye silvery white; sides of face and ear-coverts silvery white, the latter with brown bars, producing a scaled appearance; chin and upper throat black; sides of neck and under surface of body barred with white and pale brown in regular alternate bands; breast, abdomen, and under tail-coverts uniform white; thighs brown; under wing-coverts buffy white, with pale brown cross-bars; quills dusky below, isabelline buff along the inner web: "bill black; feet fleshy white; iris reddish brown; eyes surrounded by a very narrow lash of blackish brown" (*J. Gould*). Total length 4·3 inches, culmen 0·4, wing 2·2, tail 1·8, tarsus 0·6.

Adult female. Similar to the male, but less strongly barred with pale brown underneath, less crimson on the forehead; lores dusky; throat ashy whitish without any black spot. Total length 4·2 inches, culmen 0·4, wing 2·2, tail 1·7, tarsus 0·55.

Hab. From the Wide Bay District to New South Wales, Victoria and South Australia.

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|-------------------------------------|---------------------------------------|-----------------------|
| <i>a, b.</i> Ad. st. | Australia. | J. Gould, Esq. [P.]. |
| <i>c, d.</i> ♂ ♀ ad. sk. | Australia (<i>J. T. Cockerell</i>). | Salvin-Godman Coll. |
| <i>e.</i> ♂; <i>f, g.</i> ♀ ad. sk. | Australia. | Forbes Coll. |
| <i>h, i.</i> ♀ ad. sk. | New South Wales. | Gould Coll. |
| <i>k.</i> ♀ ad. sk. | New South Wales. | Hume Coll. |
| <i>l.</i> ♂ ad. sk. | Banks of the Narra. | Sir T. Mitchell [P.]. |

2. *Aidemosyne malabarica*.

- Loxia malabarica*, Linn. *Syst. Nat.* i. p. 305 (1766).
Malabar Grosbeak, Lath. *Gen. Syn.* ii. pt. i. p. 154 (1783).
Coccothraustes malabarica, Vieill. *N. Dict. d'Hist. Nat.* xiii. p. 533 (1817).
Lonchura cheet, Sykes, *P. Z. S.* 1832, p. 95; *id. P. Z. S.* 1834, p. 148; *M' Clell. P. Z. S.* 1830, p. 163.
Loxia bicolor (*nec Lath.*), Tickell, *J. A. S. B.* ii. p. 578 (1833).
Erythura cheet, Jard. & Selby, *Ill. Orn.* pl. 34 (1839).
Spermestes cheet, Jerd. *Madr. Journ.* xi. p. 27 (1840); Burgess, *P. Z. S.* 1854, p. 160.
Amadina malabarica, Blyth, *J. A. S. Beng.* xiii. p. 949 (1844), xv. p. 37 (1846); Gray, *Gen. B.* ii. p. 370 (1849); Kelaart, *Prodr. Cat.* p. 125 (1852); Layard, *Ann. & Mag. Nat. Hist.* (2) xiii.

- p. 258 (1854); *Gray, Hand-l. B.* ii. p. 55, no. 6762 (1870); *Hume, Nests & Eggs Ind. B.* p. 451 (1878); *id. Str. F.* 1879, p. 107; *Butler, Cat. B. Sind &c.* p. 46 (1879); *id. Cat. B. S. Bomb. Pres.* p. 61 (1880); *Vidal, Str. F.* ix. p. 72 (1880); *Reid, Str. F.* x. p. 55 (1881); *Davidson, t. c.* p. 312 (1882); *Swinh. Ibis*, 1882, p. 112; *Swinh. & Barnes, Ibis*, 1885, p. 129; *Macgreg. Str. F.* x. p. 439 (1887); *St. John, Ibis*, 1889, p. 170.
- Munia malabarica*, *Blyth, Cat. B. Mus. As. Soc.* p. 117 (1849); *Bp. Consp. Av.* p. 453 (1850); *Theobald, J. A. S. Beng.* xxii. p. 000 (1854); *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 503 (1856); *Jerd. B. Ind.* ii. p. 357 (1863); *Holdsw. P. Z. S.* 1872, p. 464; *Hume, Str. F.* 1873, p. 209; *Adam, t. c.* p. 337; *Ball, Str. F.* 1874, p. 421; *Butler, Str. F.* 1875, p. 496; *Fairb. Str. F.* 1876, p. 261; *Davidson & Wenden, Str. F.* vii. p. 85 (1878); *Ball, t. c.* p. 222; *Cripps, t. c.* p. 293; *Legge, Birds of Ceylon*, p. 662 (1879).
- Euodice malabarica*, *Reichenb. Singv.* p. 47, Taf. xvi. fig. 150 (1861).
- Euodeia malabarica*, *Reichenb. t. c. Nachtr.* p. iv (1861).

Adult male. Above light brown, a little darker on the head, which is slightly mottled, with blackish bases to the feathers; rump and upper tail-coverts white, the latter black along the outer web; the white rump-feathers adjoining the lower back narrowly barred with brown; tail-feathers black, the centre ones with a ferruginous lateral mark about the middle of the outer web; wing-coverts and inner secondaries brown like the back, the latter narrowly fringed with white at the ends; bastard-wing, primary-coverts, and quills black; lores, eyelid, sides of face, ear-coverts, and under surface of body white, with an isabelline tinge on the latter; sides of neck and sides of body light tawny buff, the latter faintly mottled with whitish bars; under wing-coverts and axillaries light tawny buff; quills dusky, pale tawny buff along the inner web: "upper mandible plumbeous horn-colour, lower mandible lavender; legs and feet pale purplish pink; iris dark brown" (*E. A. Butler, MS.*). Total length 4.4 inches, culmen 0.4, wing 2.15, tail 1.8, tarsus 0.55.

Adult female. Similar to the male. Total length 4.3 inches, culmen 0.4, wing 2.1, tail 1.8, tarsus 0.5.

Hab. Ceylon and Indian Peninsula, Kelat, and Afghanistan.

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| <i>m, n, o.</i> ♂; <i>p.</i> ♀ ad. sk. | Sambhur district, Feb., July (<i>R. M. Adam</i>). | Hume Coll. |
| <i>q.</i> ♀ ad. sk. | Sambhur, July (<i>R. M. A.</i>). | Tweeddale Coll. |
| <i>r.</i> Ad. sk. | Sirza district, Jan. | Hume Coll. |
| <i>s, t.</i> ♂ ♀ ad. sk. | Umbala, Nov. (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| <i>u.</i> Ad. sk. | Dehra Doon. | Tweeddale Coll. |
| <i>v.</i> Ad. sk. | Dehra Doon. | Gould Coll. |
| <i>w-x.</i> ♂ ♀ ad. sk. | Jhansi district, N. W. P., Sept. 10. | Hume Coll. |
| <i>y.</i> ♂ ad. sk. | Mooradabad, Nov. 2, 1872. | Hume Coll. |
| <i>z.</i> Ad. sk. | N. W. Provinces, Dec. 9 (<i>A. Anderson</i>). | Seebohm Coll. |
| <i>a'-d'.</i> Ad. sk. | Etawah, Sept. | Hume Coll. |
| <i>e'.</i> ♂ ad. sk. | Cawnpore, Feb. 4 (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>f'.</i> Ad. sk. | Oude, Dec. 1874. | Hume Coll. |
| <i>g'-k'.</i> ♂; <i>l', m', n'.</i> ♀ ad. et juv. sk. | Futtehgurh, March (<i>A. Anderson</i>). | Hume Coll. |
| <i>o'.</i> Ad. sk. | Dinapur (<i>S. Pinicill</i>). | Tweeddale Coll. |
| <i>p', q'.</i> Ad. sk. | Behar. | Hodgson Coll. |
| <i>r'.</i> Ad. sk. | Dacca. | Hume Coll. |
| <i>s', t'.</i> Ad. sk. | Maunbhoom, March (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| <i>u'.</i> ♀ ad. sk. | Palamow, Jan. 24 (<i>V. Ball</i>). | Hume Coll. |
| <i>v'.</i> ♀ ad. sk. | Lohardugga, Jan. 8 (<i>V. Ball</i>). | Hume Coll. |
| <i>w'.</i> Ad. sk. | Saugor (<i>W. T. Hooper</i>). | India Museum. |
| <i>x'.</i> Ad. sk. | Jubbulpur district. | Tweeddale Coll. |
| <i>y', z'.</i> ♂ ad. sk. | Mhow, March, Nov. | Col. C. Swinhoe [P.]. |
| <i>a².</i> ♂; <i>b², c².</i> ♀ ad. sk. | Khandeish, Feb., March, Oct. (<i>J. Davidson</i>). | Hume Coll. |
| <i>d²-h².</i> Ad. sk. | Deccan (<i>Sykes</i>). | India Mus. (Types of <i>Lonchura cheet.</i>) |
| <i>i², k².</i> ♂; <i>l².</i> ♀ ad. sk. | Ahmednuggur, Nov., Dec. (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>m².</i> ♀ ad. sk. | Mysore, May 23, 1881 (<i>W. Davison</i>). | Hume Coll. |
| <i>n².</i> Ad. sk. | Mysore (<i>F. Day</i>). | India Museum. |
| <i>o².</i> Ad. sk. | Madras. | Dr. Jerdon [P.]. |
| <i>p².</i> Ad. sk. | Madras (<i>Jerdon</i>). | Gould Coll. |
| <i>q², r².</i> ♀ ad. sk. | S.E. Ceylon, March (<i>W. V. Legge</i>). | R. B. Sharpe, Esq. [P.]. |

3. *Aidemosyne cantans*.

- The Brown Grosbeak, *Brown, Ill. Zool.* p. 66, pl. 27. fig. 2 (1776).
 Warbling Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 157 (1783).
Loxia cantans, *Gm. Syst. Nat.* i. p. 859 (1788); *Vieill. Ois. Chant.* p. 88, pl. 57 (1805); *Rüpp. Neue Wirb., Vög.* p. 101 (1835-40).
Coccothraustes cantans, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 529 (1817); *Heugl. Syst. Uebers.* p. 39 (1856).
Fringilla cantans, *Licht. Verz. Doubl.* p. 27 (1823).
Estrela cantans, *Rüpp. Syst. Uebers.* p. 77 (1845).
Amadina cantans, *Gray, Gen. B.* ii. p. 370 (1849); *Bp. Consp. Gen.*

Av. i. p. 454 (1850); *Strickl. P. Z. S.* 1850, p. 218; *Defil. Rev. et Mag. de Zool.* 1853, p. 290; *Hartl. Orn. W.-Afr.* p. 147 (1857); *Bolle, J. f. O.* 1859, p. 38; *Heugl. Ibis*, 1859, p. 343; *Hartl. J. f. O.* 1861, p. 259; *Antin. Cat. descr. Ucc.* p. 70 (1864); *Blanf. Geol. & Zool. Abyss.* p. 408 (1870); *Gray, Hand-l. B.* ii. p. 57, no. 6785 (1870).

Uroloncha cantans, *Cab. Mus. Hein. Th. i.* p. 173 (1850); *Heugl. J. f. O.* 1862, p. 28; *id. J. f. O.* 1868, p. 2; *Russ, J. f. O.* 1869, pp. 75, 79; *Heugl. Orn. N.O.-Afr.* p. 594, App. p. cxxx (1871); *Sharpe, Cat. Afr. B.* p. 66 (1871); *Antin. & Salvad. Viagg. Bogos*, p. 116 (1873); *Böhm, J. f. O.* 1883, p. 200; *Fischer, Zeitschr. ges. Orn. i.* p. 323 (1884); *Fischer, J. f. O.* 1885, p. 136.

Euodice cantans, *Reichenb. Singv.* p. 46, Taf. xvi. figs. 146-149 (1861).

Euodeia cantans, *Reichenb. Singv. Nachtr.* p. iv (1861).

Spermestes cantans, *Finsch, Tr. Z. S.* vii. p. 268 (1870); *id. & Hartl. Vög. Ostaf.* p. 435 (1870); *Fischer & Reichen. J. f. O.* 1878, p. 206.

Munia cantana, *Shelley, Ibis*, 1886, p. 311.

Adult male. Similar to *A. malabarica*, but distinguished by its black upper tail-coverts, barred upper surface, and by the rufous spots on the chin and sides of face: "upper mandible dark greyish blue, clearer at the base, the lower mandible clear blue-grey; feet pale vinous red, claws brown; iris reddish horny" (*Heuglin*). Total length 4·7 inches, culmen 0·45, wing 2·2, tail 1·8, tarsus 0·5.

Adult female. Similar to the male in colour. Total length 4·1 inches, culmen 0·4, wing 2·15, tail 1·55, tarsus 0·45.

Hab. Western and North-eastern Africa, extending south to the Zanzibar district. Southern Arabia.

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|---------------|--|-------------------------------|
| a. ♀ ad. sk. | Ain, Lebka Valley, Bogos,
Aug. 17. | W. T. Blanford, Esq.
[C.]. |
| b. ♂ ad. sk. | Bejook, Bogos, July 15
(<i>W. Jesse</i>). | Tweeddale Coll. |
| c. ♂ ad. sk. | Amba, Aug. 19 (<i>W. Jesse</i>). | Sharpe Coll. |
| d-g. Ad. sk. | Ailat (<i>Eder</i>). | |
| h, i. Ad. sk. | Lahej, near Aden, Jan. | Major Yerbury [P.]. |
| k. Skeleton. | Aden, Jan. | C. Chevallier, Esq. [P.]. |

- Le Senegali quinticolor, *Vieill. Ois. Chant.* p. 38, pl. 15 (1805).
Fringilla quinticolor, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 183 (1817).
 Common Grosbeak, *Lewin, Nat. Hist. B. New Holl.* pl. xii. (1822).
Fringilla temporalis, *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 253 (1827); *Jard. & Selby, Ill. Orn.* i. pl. 12. figs. 1, 2.
Estrela temporalis, *Gould, B. Austr.* fol. iii. pl. 82 (1848); *Diggles, Orn. Austr.* pl. 49. fig. 2 (1870).
Amadina temporalis, *Gray, Gen. B.* ii. p. 370 (1848); *id. Hand-l. B.* ii. p. 57, no. 6794 (1870).
Sporothlastes temporalis, *Bp. Consp.* i. p. 455 (1850).
Ægintha temporalis, *Cab. Mus. Hein. Th.* i. p. 170 (1850); *Reichenb. Singr.* p. 13, Taf. iii. figs. 16-18 (1862); *Gould, Handb. B. Austr.* i. p. 411 (1865).
Estrela (Ægintha) temporalis, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 186 (1878); *id. Tab. List Austr. B.* p. 10 (1878).

Adult. General colour above olive-yellowish; wing-coverts like the back; bastard-wing and primary-coverts ashy brown fringed with olive; quills dusky brown, externally edged with olive, brighter on the primaries, which are ashy towards the ends of the outer webs; rump and upper tail-coverts crimson; tail-feathers dusky brown, shaded with ashy grey; crown of head and nape slaty grey; lores, eyebrow, and a streak above the ear-coverts crimson; eyelid crimson above, ashy below; ear-coverts, cheeks, throat, and under surface of body ashy grey, pearly grey on the latter; centre of breast and abdomen isabelline, as also the under tail-coverts, the latter washed with ashy; sides of body and flanks ashy grey; thighs ashy grey; under wing-coverts and axillaries isabelline; quills below dusky, ashy whitish along the inner edge: "bill fine blood-red, with the ridge of the upper and lower part of the under mandible black; feet yellowish white; iris brownish red; eyelash narrow, nut-red and black" (*J. Gould*). Total length 4.5 inches, culmen 0.4, wing 2.05, tail 1.8, tarsus 0.55.

Hab. Australia, Queensland to Wide Bay District and New South Wales.

| | | |
|----------------------|--|------------------------------|
| <i>a.</i> Ad. st. | South Australia. | Sir G. Grey [P.]. |
| <i>b.</i> ♀ ad. sk. | South Australia (<i>J. G.</i>). | Gould Coll. |
| <i>c.</i> Ad. sk. | South Australia. | Sir G. Grey [P.]. |
| <i>d.</i> Ad. sk. | South Australia. | J. C. D. Packman, Esq. [P.]. |
| <i>e.</i> Ad. sk. | New South Wales. | Gould Coll. |
| <i>f, g.</i> Ad. sk. | New South Wales. | Forbes Coll. |
| <i>h.</i> ♂ ad. sk. | New South Wales. | R. B. Sharpe, Esq. [P.]. |
| <i>i, k.</i> Ad. sk. | Queensland (<i>J. T. Cock-
erell</i>). | Salvin-Godman Coll. |
| <i>l.</i> Ad. sk. | Australia. | Sir D. Cooper [P.]. |

36. BATHILDA.

Bathilda, *Reichenb. Singv.* p. 19 (1861) Type.
B. ruficauda.

Range. Confined to Australia.

1. Bathilda ruficauda.

Amadina ruficauda, *Gould, P. Z. S.* 1836, p. 106; *id. Syn. B. Austr.* pt. i. pl. 10. fig. 2 (1837); *Gray, Gen. B.* ii. p. 370 (1849).

Estrilda ruficauda, *Gould, B. Austr.* fol. iii. pl. 84 (1848); *Digglea, Orn. Austr.* pl. 49. fig. 1 (1870); *Gray, Hand-l. B.* ii. p. 52, no. 6725 (1870); *Ramsay, Proc. Linn. Soc. N. S. W.* (2) i. p. 1003 (1887), ii. p. 168 (1888).

Astrilda ruficauda, *Reichenb. Vög. Neuholl.* p. 114 (1850).

Steganopleura ruficauda, *Bp. Consp.* i. p. 456 (1850).

Bathilda ruficauda, *Reichenb. Singv.* p. 19, Taf. v. figs. 41-43 (1863); *Gould, Handb. B. Austr.* i. p. 413 (1865).

Eatrilda (*Bathilda*) *ruficauda*, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 186 (1878); *id. Tab. List B. Austr.* p. 10 (1888).

Adult male. General colour above olive-brown, the wing-coverts like the back; quills dusky, externally olive-brown; upper tail-coverts dull crimson, with a large subterminal spot of rosy white; tail-feathers dusky brown, externally dull crimson, the centre feathers entirely dull crimson; head like the back, the forehead, lores, sides of face, and chin crimson, with tiny white dots on the ear-coverts and fore parts of cheeks; hinder ear-coverts and hinder cheeks olive-brown spotted with white; throat, fore neck, and upper breast ashy olive with large white spots, as also the sides of the body; lower breast and abdomen and thighs olive-yellow, whiter on the under tail-coverts; under wing-coverts pale fulvous; quills dusky below, ashy fulvous along the inner web: "bill red; iris orange-yellow or red" (*J. R. Elsey, MSS.*). Total length 4·3 inches, culmen 0·4, wing 2·05, tail 1·75, tarsus 0·55.

Adult female. Similar to the male, but duller everywhere, with no rosy spots on the upper tail-coverts, but only a subterminal rosy-white bar; very little crimson on the forehead and face, and scarcely any on the chin. Total length 4·2 inches, culmen 0·4, wing 2·05, tail 1·75, tarsus 0·55.

37. POEPHILA *.

| | |
|--|-------------------------|
| Poephila, Gould, P. Z. S. 1842, p. 18..... | Type.
P. acuticauda. |
| Chloebia, Reichenb. Singr. p. 31 (1861)..... | P. gouldiæ. |

Range. Confined to Australia.

Key to the Species.

- a. Back reddish or ashy brown; upper tail-coverts white; sides of lower abdomen black.
 - a'. Head grey; a black band across the rump.
 - a''. Bill red or yellow in skin; breast and back pale vinous isabelline *acuticauda*, p. 375.
 - b''. Bill black; breast and back tawny vinous . *cincta*, p. 376.
 - b'. Head like the back.
 - c'. Ear-coverts like the breast *personata*, p. 377.
 - d'. Ear-coverts white, contrasting with the breast *leucotis*, p. 377.
- b. Back green, with blue on the hinder crown, sides of neck, rump, and upper tail-coverts.
 - c'. Head black, followed by a blue line *gouldiæ*, p. 378.
 - d'. Forehead crimson, vertex black, followed by a blue line *mirabilis*, p. 378.

1. *Poephila acuticauda*.

Amadina acuticauda, Gould, P. Z. S. 1839, p. 143; Gray, Gen. B. ii. p. 370 (1849); *id.* Hand-l. B. ii. p. 55, no. 6770 (1870).
Poephila acuticauda, Gould, P. Z. S. 1842, p. 18; *id.* B. Austr. fol. iii. pl. 90 (1848); Bp. Consp. i. p. 456 (1850); Reichenb. Vög. Neuholl. p. 116 (1850); *id.* Singr. p. 29, Taf. ix. figs. 82, 83 (1862); Gould, Handb. B. Austr. i. p. 422 (1865); Ramsay, Proc. Linn. Soc. N. S. W. ii. p. 187 (1878); *id.* op. cit. (2) i. p. 1091 (1887), ii. p. 169 (1888); North, t. c. p. 408; Ramsay, Tab. List Austr. B. p. 10 (1888).

Adult male. Pinkish brown on the mantle and back; lower back and wing-coverts more earthy brown, as also the inner secondaries; quills dusky blackish, the primaries ashy whitish along the outer web; upper tail-coverts white, with a black band across the rump; tail black; crown of head and nape, sides of face and ear-coverts, and cheeks delicate pearly grey; a loreal spot, eyelid, and entire throat black; remainder of under surface of body from the fore neck downwards pinkish fawn-colour; the vent, thighs, and under tail-coverts white; a large patch of black on the lower flanks, with a line of black separating the white vent from the pinkish-brown breast; under wing-coverts and quill-lining deep fawn-colour: "bill waxy orange; feet coral-red; iris black" (*spec. viv.*). Total length 4.6 inches, culmen 0.45, wing 2.4, tail 1.9, tarsus 0.55.

* Dr. E. P. Ramsay mentions (Tab. List Austr. B. p. 10) a species from the Gulf of Carpentaria as *Poephila atropygialis*, Diggles (Queensl. Phil. Soc. p. 876). I have not been able to find the quotation and cannot fix the species.

Adult female. Similar in plumage to the male. Total length 5·4 inches, culmen 0·41, wing 2·35, tail 2·9, tarsus 0·55.

Young. Similar to the adults, but much duller in colour, and having all but the centre tail-feathers broadly tipped with white. The head is not so grey, and approaches the brown of the back.

Hab. North and North-west Australia.

| | | |
|---------------------------------|--|-------------------------|
| a. Ad. sk. | N. Australia (<i>J. T. Cockerell</i>). | Salvin-Godman Coll. |
| b. Juv. sk. | Port Essington. | Capt. Chambers [P.] |
| c. Ad. sk. | Port Essington. | Gould Coll. |
| d. Ad. st. | Port Essington. | Sir J. Richardson [P.] |
| e, f. ♂; g-i. ♀ ad. et juv. sk. | N.W. Australia. | J. R. Elsey, Esq. [P.] |
| h. ♂; i-n. ♀ ad. et juv. sk. | Fitzroy River, N. W. A. (<i>T. H. Bowyer Bower</i>). | Capt. Bowyer Bower [P.] |
| o. Ad. sk. | W. Australia. | Sir G. Grey [P.] |

2. *Poephila cincta*.

Amadina cincta, Gould, *P. Z. S.* 1836, p. 105; *Gray, Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 55, no. 6772 (1870).

Poephila cincta, Gould, *B. Austr.* fol. iii. pl. 93 (1848); *Reichenb. Vog. Neuhol.* p. 117 (1858); *id. Singv.* p. 29, Taf. xi. fig. 79 (1862); *Gould, Handb. B. Austr.* i. p. 425 (1865); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 187 (1878); *id. Tab. List Austr. B.* p. 10 (1888).

Sporothlaetes cincta, *Bp. Consp.* i. p. 456 (1850).

Adult male. General colour above light cinnamon-brown, a little more dingy brown towards the rump, which is crossed by a black bar; lower rump and upper tail-coverts white; wing-coverts drab-brown; bastard-wing, primary-coverts, and quills dusky brown, externally drab-brown, the primaries margined with whitish; tail-feathers black; crown of head delicate ashy grey, pearly grey on the forehead; lores black; eyelid, ear-coverts, and cheeks pearly grey, whitish at the base of the cheeks; throat entirely black; under surface of body from the fore neck cinnamon, with a black bar across the flanks; lower abdomen, lower flanks, thighs, and under tail-coverts white; under wing-coverts and all other underparts

3. *Poephila personata*.

Poephila personata, Gould, *P. Z. S.* 1842, p. 18; *id. B. Austr.* fol. iii. pl. 91 (1848); *Reichenb. Vög. Neuhol.* p. 117 (1850); *Bp. Consp.* i. p. 456 (1850); *Reichenb. Singr.* p. 20, Taf. ix. figs. 80, 81 (1862); Gould, *Handb. B. Austr.* i. p. 423 (1865); Ramsay, *Proc. Linn. Soc.* ii. p. 187 (1878); *id. Tab. List Austr. B.* p. 10 (1888).
Amadina personata, Gray, *Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 55, no. 6771 (1870).

Adult male. Pinkish brown; rump and upper tail-coverts white; wing-coverts like the back; quills brown, externally like the back; tail-feathers black; head a little more cinnamon-brown than the back; base of forehead, lores, base of cheeks, and a large chin-spot, black; sides of face and under surface of body pinkish brown, with a large black patch on either flank separated by a line of white from the brown of the breast; abdomen and under tail-coverts white; under wing-coverts like the breast; quills dusky below, reddish along the inner web: "bill bright orange; legs and feet fleshy red; iris red" (*Gilbert*). Total length 5.2 inches, culmen 0.45, wing 2.2, tail 2.05, tarsus 0.55.

Adult female. Similar to the male, but somewhat duller in colour. Total length 4.7 inches, culmen 0.45, wing 2.3, tail 1.75, tarsus 0.6.

Young. Browner than the adult, with a blackish bill; the whole plumage with less pink, and the black mask and flank-spots not so pronounced.

Hab. North and North-west Australia.

| | | |
|--|-----------------------------|-------------------------|
| <i>a, b.</i> Ad. sk. | N. Australia. | Salvin-Godman Coll. |
| <i>c.</i> Juv. sk. | N. Australia. | Gould Coll. |
| <i>d.</i> Ad. st. | Port Essington. | Sir J. Richardson [P.]. |
| <i>e, f.</i> ♂ ♀ ad.; <i>g.</i> ♀ juv. sk. | N.W. Australia, April 1856. | J. R. Elsey, Esq. [P.]. |

4. *Poephila leucotis*.

Poephila leucotis, Gould, *P. Z. S.* 1846, p. 106; *id. B. Austr.* fol. iii. pl. 92 (1848); *Bp. Consp.* i. p. 456 (1850); Gould, *Handb. B. Austr.* i. p. 424 (1865); Ramsay, *Proc. Linn. Soc. N. S. W.* ii. p. 18 (1878); *id. Tab. List Austr. B.* p. 10 (1888).
Amadina leucotis, Gray, *Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 55, no. 6773 (1870).

Adult. General colour above warm cinnamon-brown, the rump and upper tail-coverts white, with a black patch on the sides of the former, and the lateral tail-coverts externally black; wing-coverts like the back, the quills dusky blackish, externally like the back, the primaries edged with whitish; tail-feathers black; crown of head rather darker cinnamon-brown like the back; base of forehead, lores, eyelid, fore part of cheeks, and chin black; hinder cheeks and ear-coverts silvery white; sides of neck, throat, and breast pinkish isabelline; abdomen, thighs, and under tail-coverts white; sides of lower breast also white, followed by a broad black patch on the flanks, the lower feathers being black with white tips; under wing-

coverts like the breast; quills dusky below, reddish on the inner web: "bill yellowish horn colour; feet red; iris dark brown" (*J. Gould*). Total length 4 inches, culmen 0.45, wing 2.15, tail 1.75, tarsus 0.55.

Hab. North Australia.

a. ♂ ad. sk.

Australia.

Forbes Coll.

5. *Poephila gouldiæ*.

Poephila admirable (pt.), *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 22. fig. 2 (1842-53).

Amadina gouldiæ, *Gould, P. Z. S.* 1844, p. 5; *Gray, Gen. B.* ii. p. 370 (1849); *Reichenb. Vög. Neuhol.* p. 111 (1850); *Gray, Hand-l. B.* ii. p. 55, no. 6774 (1870).

Poephila gouldiæ, *Des Murs, Iconogr. Orn.* pl. iii. fig. 2 (1845); *Gould, B. Austr.* fol. pl. 88 (1848); *Bp. Consp.* i. p. 456 (1850); *Gould, B. Austr.* i. p. 420 (1865); *Armit, Journ. Linn. Soc. (Lond.)*, Zool. xiv. p. 96 (1877); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. pp. 70, 187 (1878); *id. op. cit.* (2) i. p. 1091 (1887), ii. p. 169 (1888); *id. Tab. List Austr. B.* p. 10 (1888).

Chloebea gouldiæ, *Reichenb. Singv.* p. 30, Taf. x. figs. 84-86 (1862).

Adult male. Similar to *P. mirabilis*, but distinguished by a black forehead and snipeput, followed by a broad band of cobalt-blue, separating the black forehead from the green of the nape and back: "bill pink and white, the tip yellow" (*J. R. Elsey*); "feet flesh-colour" (*Gilbert*). Total length 5.8 inches, culmen 0.45, wing 2.55, tail 2.7, tarsus 0.55.

Adult female. Duller in colour than the male, especially as regards the blue on the head and the lilac breast.

Young. Dingy yellowish green; the head ashy grey, with a little black on the face; throat ashy grey, the breast pale brown and the abdomen pale yellowish.

Hab. North and North-west Australia.

a-d. Imm. sk.

N. Australia.

Gould Coll.

e. Ad.; *f.* Juv. sk.

Port Essington.

Sir J. Richardson [P.].

g, h. Ad. et juv. st.

Port Essington.

Sir J. Richardson [P.].

i. Ad. sk.

Port Essington (*Capt. Stan-*

Voy. H.M.S. 'Rattle-

lett.

snail.

- Poephila mirabilis*, *Des Murs, Iconogr. Orn.* pl. iii. (1845); *Gould, B. Austr.* fol. iii. pl. 89 (1845); *Reichenb. Vög. Neuhol.* p. 91 (1850); *Bp. Conspect.* i. p. 456 (1850); *Jacq. et Pucher, Voy. Pile Sud*, iii. p. 99 (1853); *Gould, Handb. B. Austr.* i. p. 421 (1865); *Armit, Journ. Linn. Soc.* xiv. p. 95 (1877); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 187 (1878); *id. op. cit.* (2) i. p. 1091 (1887), ii. p. 169 (1888); *id. Tab. List Austr. B.* p. 10 (1888).
Amadina gouldiæ, pt., *Gray, Gen. B.* ii. p. 370 (1849).
Chloebia mirabilis, *Reichenb. Singr.* p. 30, Taf. x. figs. 87, 88 (1862).
Amadina mirabilis, *Gray, Hand-l. B.* ii. p. 55, no. 6775 (1870).

Adult male. Very pale grass-green, the feathers of the rump and upper tail-coverts light blue with ashy whitish tips; wing-coverts like the back; bastard-wing and primary-coverts dusky brown with narrow greenish margins; quills dusky brown, the primaries externally olive-yellow, the secondaries greener on the outer web, the inner ones yellow in the centre; tail-feathers black, the outer ones spotted with white at the ends; forehead and sinciput, lores, sides of face, and ear-coverts scarlet; this red patch surrounded by a narrow line of black, followed by a band of beautiful blue between the black line and the green of the occiput and hind neck, which is rather lighter than the rest of the back; throat black, followed by a line of bright cobalt-blue, and then by a broad band of beautiful lilac across the fore neck and chest; remainder of under surface of body golden yellow, with a tinge of light green on the flanks; thighs fulvescent; under tail-coverts white; under wing-coverts fulvescent; quills dusky below, isabelline along the inner web: "bill pink and white; legs yellow; iris deep brown" (*J. R. Elsey*). Total length 4.1 inches, culmen 0.5, wing 2.55, tail 1.9, tarsus 0.55.

Adult female. Similar to the male in colour. Total length 5 inches, culmen 0.45, wing 2.6, tail 2, tarsus 0.55.

Young. Very much paler than the adults; head black, mixed with dark crimson, and this frontal patch bordered behind by a distinct broad line of blue; throat black, as also the sides of the face, which show a little crimson below the eye; sides of neck pale green, with a little blue shade in the centre; chest-patch very pale lilac; breast and abdomen very pale yellow.

Hab. North and North-west Australia.

| | | |
|-----------------------------------|-----------------------------|-------------------------|
| <i>a.</i> Ad. sk. | N. Australia. | Tweeddale Coll. |
| <i>b.</i> Ad.; <i>c.</i> Juv. sk. | Port Essington. | Dr. Richardson [P.]. |
| <i>d, e.</i> Ad. et juv. st. | Port Essington. | Capt. Stanley [P.]. |
| <i>f, g.</i> ♂ ♀ ad. sk. | N.W. Australia, April, May. | J. R. Elsey, Esq. [P.]. |

38. ERYTHRURA.

| | |
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| | Type. |
| <i>Erythrura</i> , Swains. <i>Classif. B.</i> ii. p. 280 (1837) | <i>E. prasina</i> . |
| <i>Geospiza</i> (<i>nec Gould</i>), Peale, <i>U.S. Expl. Exped., Zool.</i>
p. 117 (1848). | |
| <i>Amblyura</i> , Reichenb. <i>Singv.</i> p. 32 (1850) | <i>E. pealii</i> . |
| <i>Acalanthe</i> , Reichenb. <i>t. c.</i> p. 32 (1861) | <i>E. psittacea</i> . |
| <i>Lobospiza</i> , Hartl. & Finsch, <i>P. Z. S.</i> 1870, p. 817. | <i>E. cyanovirens</i> . |

Range. Southern Tenasserim, through the Malayan Peninsula to Java, Sumatra, and Borneo, Ternate, New Guinea, Pelew and Caroline Islands, Solomon Islands, New Hebrides, New Caledonia, Fiji Islands, Samoa Islands.

Key to the Species.

- a. Red, yellow, or ashy brown on the breast and abdomen; tail longer.
 - a'. Breast red or yellow; throat blue; forehead blue *prasina* ♂, p. 381.
 - b'. Breast and throat ashy brown; forehead green like the head *prasina* ♀, p. 381.
- b. Breast and abdomen blue or green.
 - c'. Forehead crimson.
 - a''. Forehead only crimson; remainder of head green like the back.
 - a'''. Throat crimson, like the sides of the face *psittacea* ♂, p. 382.
 - b'''. Throat blue, contrasting with the crimson sides of the face *pealii* ♂, p. 383.
 - b''. Entire head crimson, followed by blue on the nape or hind neck; throat blue.
 - c'''. Sides of neck green, as also the fore neck and chest; throat only blue . . . *cyanovirens* ♂, p. 384.
 - d'''. Sides of neck blue like the throat and chest; nape crimson like the head.
 - a⁴. A blue collar round the hind neck; back and abdomen green *serena* ♂, p. 385.
 - b⁴. Back blue; entire underparts blue. *regia* ♂, p. 385.

1. *Erythrura prasina*.

- Le Verdier de Java, *Briss. Orn.* iii. p. 193, pl. vii. fig. 4 (1760).
 Le Quadricolor, *Buff. Hist. Nat. Ois.* iii. p. 467 (1775).
 Le Toupet bleu, *Montb. Hist. Nat. Ois.* iv. p. 179 (1778).
 Gros-bec de Java, *Daubent. Pl. Enl.* iv. pl. 101. fig. 2.
 Red-rumped Bunting, *Lath. Gen. Syn.* ii. pt. i. p. 208 (1783).
 Blue-faced Bunting, *Lath. Gen. Syn.* ii. pt. i. p. 209 (1783).
Loxia prasina, *Sparrm. Mus. Carls.* ii. pls. 72, 73 (1788); *Raffles, Trans. Linn. Soc.* xiii. p. 314 (1820); *Sunder. Crit. om Sparrm.* p. 12 (1857).
Emberiza cyanopis, *Gm. Syst. Nat.* p. 886 (1788).
Emberiza quadricolor, *Gm. Syst. Nat.* p. 886 (1788).
Coccothraustes prasina, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 537 (1817).
Fringilla prasina, *Horsf. Trans. Linn. Soc.* xiii. p. 161 (1820).
Fringilla sphecura, *Temm. Pl. Col.* iii. pl. 96. figs. 1-3 (1824).
Lonchura quadricolor, *Sykes. P. Z. S.* 1832, p. 94.
Erythrura viridis, *Sirains. Class. B.* ii. p. 280 (1837).
Erythrura prasina, *Blyth, Cat. B. Mus. As. Soc.* p. 118 (1849).
Amadina prasina, *Gray, Gen. B.* ii. p. 370 (1849); *id. Hand-l. B.* ii. p. 58, no. 6805 (1870).
Erythrura prasina, *Bp. Consp. Ac.* p. 457 (1850); *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 503 (1856); *Hartl. P. Z. S.* 1858, p. 461; *Reichenb. Singr.* p. 34, Taf. xi. figs. 99-101 (1861); *Salvad. Ucc. Born.* p. 268 (1874); *Hume, Str. F.* 1875, p. 323; *Sharpe, Ibis*, 1876, p. 50; *Hume & Davison, Str. F.* vi. p. 405 (1878); *Nicholson, Ibis*, 1879, p. 170; *Sharpe, t. c.* p. 262; *Hume, Str. F.* viii. pp. 67, 107, ix. p. 121 (1881); *Scl. Ibis*, 1881, p. 545; *Nicholson, Ibis*, 1882, p. 63; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliii. p. 106 (1884), xlii. p. 234 (1887); *Sharpe, Ibis*, 1889, p. 435.

Adult male. General colour above grass-green, the upper tail-coverts scarlet; centre tail-feathers dull crimson, the remainder blackish, edged with crimson and tipped with olive; wing-coverts and inner secondaries dull grass-green, the remainder blackish, edged with grass-green, the primaries with olive-yellow; head green like the back, as also the sides of the neck; the forehead, sides of face, ear-coverts, and throat blue; lores and feathers at base of bill black; remainder of under surface of body from the lower throat downwards deep cinnamon-buff; centre of breast and abdomen scarlet; under wing-coverts like the flanks; quills dusky below, ashy along the edge of the inner web. Total length 5·5 inches, culmen 0·55, wing 2·3, tail 2·35, tarsus 0·55.

Adult female. Similar to the male, but much duller in colour and with a shorter tail; the blue not being so pronounced on the face and throat and shading off into ochreous brown on the fore neck; the scarlet on the underparts reduced to a small patch in the centre of the breast. Total length 4·5 inches, culmen 0·5, wing 2·3, tail 1·7, tarsus 0·55.

Young. Everywhere much duller in colour than the adults, and having a tinge of saffron-yellow on the rump; no blue on the forehead and only a slight tinge of blue on the face, which is otherwise green; throat pale smoky brown with an ashy-greenish shade, the

sides of the chest green; remainder of under surface of body ochreous buff, browner on the sides. Total length 4·6 inches, culmen 0·55, wing 2·4, tail 1·6, tarsus 0·6.

In the collection are several specimens of a curious variety of the present species, in which the upper tail-coverts and tail are golden yellow instead of scarlet, and the pectoral patch is also yellow instead of scarlet. Mr. Everett collected a young bird on Marintanan which has yellowish upper tail-coverts, showing that this yellow variation begins early in life, and is probably always retained.

Hab. From Southern Tenasserim, down the Malayan Peninsula to Sumatra, Java, and Borneo.

| | | |
|---|--|---------------------------|
| <i>a-h.</i> ♂ ad.; <i>i, k.</i> ♀ juv. sk. | Bopyin, Tenasserim, Dec. (W. Davison). | Hume Coll. |
| <i>l, m.</i> Ad. et juv. sk. | Pakchan, Jan. (W. D.). | Hume Coll. |
| <i>n.</i> ♀ juv. sk. | Bankasoon, Dec. (W. D.). | Hume Coll. |
| <i>o-y.</i> ♂; <i>z-b'.</i> ♀ ad. sk. | Malewoon, Jan. (W. D.). | Hume Coll. |
| <i>c', d'.</i> ♂ ad.; <i>e', f'.</i> ♂ ♀ juv. sk. | Selangore, Nov. (W. D.). | Hume Coll. |
| <i>g'-i.</i> Ad. sk. | Sumatra, Oct. (C. Bock). | Tweeddale Coll. |
| <i>k'.</i> Ad. sk. | Java (Kuhl & Von Hasselt). | Gould Coll. |
| <i>l.</i> Ad. sk. | Java (Dr. Hornfield). | India Museum. |
| <i>m'.</i> Ad. sk. | Java. | Forbes Coll. |
| <i>n'.</i> Juv. sk. | W. Java (E. C. Burton). | F. Nicholson, Esq. [P.] |
| <i>o', p'.</i> Ad. et juv. sk. | Borneo. | Gould Coll. |
| <i>q'.</i> ♂; <i>r', s'.</i> ♀ ad. et juv. sk. | Sibu, Sarawak, July. | Alfred Everett, Esq. [C.] |
| <i>t', u'.</i> Ad.; <i>v.</i> Juv. sk. | Lawas River (H. Bar-bidge). | H. Veitch, Esq. [P.] |
| <i>w', x'.</i> Ad.; <i>y'.</i> Juv. sk. | Island of Marintanan, N. Borneo. | A. H. Everett, Esq. [C.] |
| <i>z'.</i> Ad. st. | Java. | Purchased. |

2. *Erythrura psittacea.*

Parrot Finch, *Lath. Gen. Syn.* ii. pt. i. p. 287, pl. 48 (1783).

Fringilla psittacea, *Gm. Syst. Nat.* i. p. 1603 (1788). *Vieill. Ois.*

quills dusky brown, edged with green, the inner secondaries entirely green, the primaries edged with greenish yellow; hind part of head and sides of neck like the back; forehead and sinciput, eyebrow, sides of face, and ear-coverts, as well as the throat and fore neck, bright crimson-scarlet; remainder of under surface of body from the chest downwards bright grass-green, as also the thighs and under tail-coverts; under wing-coverts pale yellow; quills dusky below, yellowish along the inner web: "bill black; legs brown; iris dark brown" (*E. L. Layard*). Total length 4·4 inches, culmen 0·4, wing 2·2, tail 1·75, tarsus 0·65.

Young. Duller green than the adult, with no scarlet on the face or throat, the entire head and throat green like the back.

Hab. New Caledonia.

| | | |
|-------------------------|--|----------------------------|
| a. ♂ ad. sk. | Port de France, New Caledonia, Oct. | J. Brenchley, Esq. [P.] |
| b. ♂ ad. sk. | Nu, Port de France, New Caledonia, May. | J. Macgillivray, Esq. [C.] |
| c. ♂ ad.; d. ♀ juv. sk. | Noumea, Aug. & Oct. (<i>E. L. Layard</i>). | Tweeddale Coll. |
| e. ♂ ad. sk. | Dembea, July 13 (<i>E.L.L.</i>). | Forbes Coll. |
| f. Ad. sk. | New Caledonia. | Forbes Coll. |

3. *Erythrura pealii*.

Geospiza prasina (*nec Sparrm.*), *Peale, U. S. Expl. Exped., Birds*, p. 116, pl. 31. fig. 3 (1848).

Erythrura pealii, *Hartl. in Wiegmann Arch.* 1852, pp. 104, 132; *Cass. U. S. Expl. Exped., Birds*, p. 138, pl. 8. fig. 1 (1858); *Hartl. P. Z. S.* 1858, p. 462; *id. Ibis*, 1884, p. 232; *Finsch & Hartl. Faun. Centralpolyn.* p. 99 (1867); *Layard, P. Z. S.* 1875, p. 435, *Ibis*, 1876, pp. 151, 392; *Sci. Ibis*, 1881, p. 546.

Amadina (*Erythrura*) *pealii*, *Gray, Cat. B. Tropical Isl.* p. 27 (1859).

Amblynura pealii, *Reichenb. Singv.* p. 32, Taf. xii. figs. 93, 94 (1861).

Amadina pealii, *Gray, Hand-l. B.* ii. p. 57, no. 6801 (1870).

Adult male. Grass-green, the wing-coverts like the back; quills dusky brown, the inner secondaries entirely green, the rest of the quills externally green, the primaries yellowish green on the outer web; lower rump and upper tail-coverts dull scarlet, as also the centre tail-feathers; remainder of tail-feathers blackish, externally dull scarlet, olive greenish towards the ends of the outer web; crown of head scarlet as far as the hinder crown, the occiput and nape green like the back; a dusky loreal spot and a small dusky mark on the fore part of the cheeks; sides of face, ear-coverts, and cheeks scarlet; throat blackish, washed with blue on the lower throat, the fore neck inclining to cobalt-blue, shading off into the emerald-green of the remainder of the under surface; under wing- and tail-coverts also green; quills dusky below, ashy along the inner web: "bill blackish; feet brown or pinkish grey; iris black" (*E. L. Layard*). Total length 4·3 inches, culmen 0·5, wing 2·25, tail 1·2, tarsus 0·6.

Adult female. Similar to the male: "bill black; feet and iris brown" (*E. L. Layard*). Total length 4 inches, culmen 0.45, wing 2.25, tail 1.2, tarsus 1.65.

Young. Differs from the adult in being duller in colour, and lacks the scarlet on the head and face, these parts as well as the throat being blue, with a few scarlet plumes on the former and some black feathers on the latter: "base of bill wattled" (*E. L. Layard*).

Hab. Fiji Islands.

| | | |
|------------------------|--|---------------------|
| a-c. ♂ ; d. ♀ juv. sk. | Rewa, Fiji, Oct., Nov.
(<i>E. L. Layard</i>). | Tweeddale Coll. |
| e. ♀ ad. sk. | Taviuni, Aug. 18 (<i>E. L. L.</i>) | Forbes Coll. |
| f. Juv. sk. | Taviuni (<i>Liardet</i>). | Salvin-Godman Coll. |
| g. Imm. sk. | Taviuni, April 21 (<i>L. C. Layard</i>). | Tweeddale Coll. |

4. *Erythrura cyanovirens*.

Geospiza cyanovirens, *Peale, Zool. U. S. Expl. Exped., Birds*, p. 117, pl. 31. fig. 4 (1848).

Erythrura cyanovirens, *Hartl. Arch. f. Naturg.* 1852, pp. 104, 132; *Cass. U. S. Expl. Exped., Zool.* p. 137, pl. 8. fig. 2 (1858); *Hartl. P. Z. S.* 1858, p. 457; *Finsch & Hartl. Faun. Centralpolyn.* p. 100, pl. ix. fig. 4 (1867); *Whitmee, Ibis*, 1875, p. 441; *Layard, P. Z. S.* 1876, p. 495; *Sci. Ibis*, 1881, p. 540.

Erythrura pucherani, *Bp. Consp. Av.* i. p. 457 (1850); *Hartl. P. Z. S.* 1858, p. 457; *Reichenb. Singv.* p. 34 (1861); *Sci. Ibis*, 1881, p. 540.

Amadina (Erythrura) cyanovirens, *Gray, Cat. B. Trop. Isl.* p. 27 (1859).

Amadina (Erythrura) pucherani, *Gray, Cat. B. Trop. Isl.* p. 27 (1859).

Amblynura cyanovirens, *Reichenb. Singv.* p. 32, Taf. xi. fig. 95 (1861); *Hartl. & Finsch, P. Z. S.* 1871, p. 23.

Amadina cyanovirens, *Gray, Hand-l. B.* ii. p. 57, no. 6802 (1870).

Lobospiza notabilis, *Hartl. & Finsch, P. Z. S.* 1870, p. 817, pl. 40, 1871, p. 24; *Finsch, J. f. O.* 1872, p. 43; *Hartl. P. Z. S.* 1875, p. 209; *Finsch, Journ. Mus. Godeffr.* Heft xii. p. 30, note (1876); *Layard, P. Z. S.* 1876, p. 495.

5. *Erythrura serena*.

Erythrospiza (!) *serena*, *Scl. Ibis*, 1881, p. 544, pl. xv. fig. 1.

Adult. Similar to *E. cyanovirens*, and with a bright scarlet head and upper tail-coverts; the scarlet of the head extending to the hind neck, which is separated from the uniform green back by a broad blue collar; throat and chest blue, this colour extending on to the upper breast; remainder of under surface light green: "feet dusky flesh-colour; iris dark umber-brown" (*J. Macgillivray*)*. Total length 4·25 inches, culmen 0·55, wing 2·6, tail 1·35, tarsus 0·7.

Young. Entirely green above, excepting the upper tail-coverts and tail-edgings, which are dull red; a slight bluish tinge on the sides of the face and crown; under surface of body pale ochreous, the throat and chest light green.

Hab. Island of Aneiteum, New Hebrides.

a-e. Ad. et juv. sk. Aneiteum. J. Macgillivray [C.]. (Types of species.)

6. *Erythrura regia*.

Erythrospiza (!) *regia*, *Scl. Ibis*, 1881, p. 544, pl. xv. fig. 2.

Adult. Similar to *E. serena*, but with the entire back and underparts blue instead of green. "Total length 4 inches, wing 2·5, tail 1·5" (*Sclater*).

Hab. Island of Api, New Hebrides.

7. *Erythrura trichroa*.

Fringilla trichroa, *Kittl. Mém. Acad. St. Pétersb.* ii. p. 8, pl. 10 (1835).

Estrela trichura, *Gray, Gen. B.* ii. p. 369 (1849).

Erythrura trichroa, *Bp. Consp. Av.* i. p. 457 (1850); *Hartl. P. Z. S.* 1858, p. 461; *Reichenb. Singv.* p. 33, pl. xi. fig. 98 (1861); *Scl. P. Z. S.* 1870, p. 158; *Meyer, Sitz. k. Akad. Wien*, lxx. p. 127 (1874); *Salvad. Ann. Mus. Civ. Genov.* xvi. p. 192 (1880); *Finsch, P. Z. S.* 1880, p. 576; *id. J. f. O.* 1880, p. 290; *id. Ibis*, 1881, pp. 108, 115; *Scl. Ibis*, 1881, p. 545; *Salvad. Orn. Pap.* ii. p. 442 (1881); *id. Ibis*, 1884, p. 354; *Guillem. P. Z. S.* 1885, p. 573; *Grant, P. Z. S.* 1888, p. 197.

Erythrura kittlitzii, *Bp. Consp. Av.* i. p. 457 (1850, ex *Bp. MSS.*); *Gray, Hand-l. B.* ii. p. 58, no. 6804 (1870).

Estrela trichroa, *Gray, Cat. B. Trop. Isl.* p. 27 (1859).

Erythrura modesta, *Wall. P. Z. S.* 1862, p. 351.

Amadina modesta, *Finsch, Neu-Guinea*, p. 176 (1865).

Erythrura phoenicura, *Bernst. Nederl. Tijdschr. Dierk.* ii. p. 331 (1865).

Amadina trichroa, *Gray, Hand-l. B.* ii. p. 58, no. 6806 (1870); *Rosenb. Reistoht. Geelrinkb.* p. 7 (1875); *id. Malay. Archip.* p. 406 (1879).

Erythrura glauca, *Finsch, Journ. Mus. Godeffr.* xii. p. 36 (1876).

Erythrura sp. inc., *Finsch, P. Z. S.* 1877, p. 779.

Adult male. Grass-green, a little lighter on the hinder crown and sides of neck; wing-coverts like the back, as also the inner

* The feet are given in the 'Ibis' plate as *brown* and the iris as *black*.

secondaries; bastard-wing and primary-coverts blackish; quills dusky brown, edged with green, the primaries with yellowish green; rump and upper tail-coverts dull crimson; centre tail-feathers dull crimson, the remainder blackish, dull crimson along the outer web; base of forehead, lores, and base of cheeks blackish; a broad frontal band, eyebrow, sides of face, ear-coverts, and cheeks cobalt-blue; throat and under surface of body clear grass-green, a little lighter on the throat and breast; thighs ochreous yellow; under wing-coverts and axillaries ochreous buff, the latter washed with green; quills dusky below, ochreous buff along the inner web: "bill black; feet pale brown; iris black" (*C. M. Woodford*) Total length 5.3 inches, culmen 0.5, wing 2.35, tail 1.9, tarsus 0.65.

Adult female. Everywhere duller in colour than the male. Total length 4.7 inches, culmen 0.5, wing 2.3, tail 1.65, tarsus 0.65.

Young. Differs from the adults in having no blue on the forehead or face, both of which are green; throat and breast dingy green, shading off into ochreous buff on the abdomen and under tail-coverts; bill blackish, with more or less white on the lower mandible and edge of the upper: "iris dark brown" (*C. M. Woodford*).

The specimens from the Solomon Islands appear to me to have a somewhat narrower frontal band, but are otherwise identical with those from Ternate.

Hab. Moluccas, New Guinea, Caroline Islands, and Solomon Islands.

| | | |
|--------------------------|----------------------------|--|
| <i>a, b.</i> ♂ ♀ ad. sk. | Ternate. | Wallace Coll. (Types of <i>E. modesta</i> .) |
| <i>c-i.</i> ♂ ♀ ad. sk. | Ternate. | |
| <i>k.</i> ♀ juv. sk. | Ternate. | Purchased. |
| <i>l, m.</i> ♂ ♀ ad. sk. | Aola, Guadalcanar, July 5. | <i>C. M. Woodford, Esq.</i> [C.] |

8. *Erythrura cyaneifrons*.

Erythrura cyanifrons, *E. L. Layard, Ann. & Mag. N. H.* (5) i. p. 374 (1878).

Erythrura cyaneifrons, *E. L. & L. C. Layard, Ibis*, 1878, p. 200;

9. *Erythrura forbesi*.

Erythrura tricolor (*nec Vieill.*), *Sclater*, *P. Z. S.* 1883, pp. 51, 200.

Erythrura trichroa (*nec Kittl.*), *Forbes*, *P. Z. S.* 1884, p. 443; *id.*
Nat. Wand. Malay Arch. p. 365 (1885).

Adult male. Similar to *E. tricolor*, but with the hinder head entirely green like the back, without any wash of blue on the head, back, and wings. Total length 4 inches, culmen 0·45, wing 2·05, tail 1·15, tarsus 0·55.

Hab. Tenimber Islands.

a. ♂ ad. sk. Loetoer, Timor Laut, Sept. H. O. Forbes, Esq. [C.]
19, 1882.

10. *Erythrura tricolor*.

L'Azuvert, *Vieill. Ois. Chant.* p. 43, pl. 20 (1805).

Fringilla tricolor, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 233 (1817); *id.*
Enc. Méth. p. 974 (1823).

Diacmura tricolor, *Reichenb. Singv.* p. 48, pl. xvii. fig. 156 (1861).

Erythrura tricolor, *Wallace, P. Z. S.* 1863, p. 486; *Scl. Ibis*, 1881,
p. 545.

Amadina tricolor, *Gray, Hand-l. B.* ii. p. 58, no. 6807 (1870).

Adult male. Above green, the head washed with blue, which also overspreads the neck and mantle; wing-coverts and the inner secondaries green, washed with blue; bastard-wing, primary-coverts, and quills dusky brown, externally narrowly fringed with green, yellower on the primaries; lower rump and upper tail-coverts scarlet; tail-feathers dusky brown, externally dull red; forehead, sides of face, ear-coverts, cheeks, and throat purplish blue, shading off into paler cobalt-blue on the sides of the crown, sides of neck, lower breast, and abdomen; thighs ochreous yellow; wing-coverts ochreous buff; axillaries green. Total length 3·9 inches, culmen 0·45, wing 2·05, tail 1·15, tarsus 0·55.

Hab. Timor.

a. Ad. sk. Timor. Wallace Coll.

11. *Erythrura kleinschmidti*.

Amblynura kleinschmidti, *Finsch, P. Z. S.* 1878, p. 440, pl. xxix.

Front, fore part of cheeks to the posterior edge of the eye, and chin black; vertex obscure blue; upper surface dark grass-green, the same as the outer edge of the remiges, which are blackish brown like the tail-feathers; upper tail-coverts splendid scarlet-red; underparts grass-green, much brighter and lighter than the upper parts; ear-region bright greenish yellow; under wing-coverts isabelline; bill and feet ivory-yellow in the skin, in the living bird apparently flesh-coloured; nails dark brown. Total length 4 inches, culmen 0·6, wing 2·5, tail 1·15, tarsus 0·85. (*Finsch.*)

Hab. Viti Levu, Fiji Islands.

39. CHLORURA.

Type.

Chlorura, Reichenb. *Singvögel*, p. 33 (1862) *C. hyperythra*

Range. Java and Borneo.

1. *Chlorura hyperythra*.

Chlorura hyperythra, Reichenb. *Singvögel*, p. 33, Taf. xi. fig. 97 (1862);
Scl. Ibis, 1881, p. 516; *Salvad. Orn. Pap.* ii. p. 443 (1881); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 248 (1883), xlv. p. 395 (1886);
Sharpe, Ann. & Mag. Nat. Hist. (6) iii. p. 434 (1889).
Amadina hyperythra, Gray, *Hand-l. B.* ii. p. 58, no. 6808 (1870);
Rosenb. Malay. Archip. p. 558 (1870).

Adult female. General colour above dark grass-green, the wing-coverts like the back or edged with grass-green, the primaries externally margined with olive-yellow; upper tail-coverts dull orange; tail-feathers blackish, green at the ends, the centre ones green washed with orange; head green like the back; the forehead blue, with a black band along the bases of the bill; lores, sides of face, ear-coverts, cheeks, and under surface of body deep tawny rufous, almost chestnut, becoming rather paler on the abdomen, thighs, and under tail-coverts; sides of breast, sides of body, and flanks grass-green; under wing-coverts and axillaries tawny rufous; quills dusky below, ashy along the inner web: "bill black; feet and claws dirty flesh-colour; iris dark vandyke brown" (*A. G. Vorderman*). Total length 4·3 inches, culmen 0·45, wing 2·2, tail 1·35, tarsus 0·65.

Hab. Java.

a. ♀ ad. sk.

Java (*Leyden Mus.*).

Salvin-Godman Coll.

2. *Chlorura borneensis*.*Chlorura hyperythra* (neo Reichenb.), *Sharpe, Ibis*, 1887, p. 453.*Chlorura borneensis*, *Sharpe, Ann. & Mag. Nat. Hist.* (6) iii. p. 424 (1889); *id. Ibis*, 1889, p. 435.*Adult male.* Similar to *C. hyperythra*, but under tawny rufous

40. NEOCHMIA.

Neochmia, *Bp. Consp.* i. p. 458 (1850) Type.
N. phaeton.

Range. Confined to Australia.

1. Neochmia phaeton.

Fringilla phaeton, *Hombr. et Jacq. Ann. Sci. Nat.* (2) xvi. p. 314 (1841).

Neochmie phaeton, *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 22. fig. 2 (1842-53); *Gould, Handb. B. Austr.* i. p. 415 (1865).

Estrilda phaeton, *Gould, B. Austr.* fol. iii. pl. 83 (1848); *Gray, Gen. B.* ii. p. 368 (1849); *id. Hand-l. B.* ii. p. 53, no. 6740 (1870); *Diggles, Orn. Austr.* pl. 49. fig. 3 (1870); *Ramsay, Proc. Linn. Soc. N.S.W.* (2) i. p. 1091 (1887), ii. p. 169 (1888).

Neochmia phaeton, *Bp. Consp.* i. p. 458 (1858); *Reichenb. Singr.* p. 19, Taf. v. figs. 39, 40 (1862).

Astrilda phaeton, *Reichenb. Vög. Neuhol.* p. 115 (1850).

Erythrura phaeton, *Jacq. et Pucher. Voy. Pôle Sud*, iii. p. 99 (1853); *Hartl. P. Z. S.* 1858, p. 462.

Estrela (Neochmia) phaeton, *Ramsay, Proc. Linn. Soc. N.S.W.* ii. p. 186 (1878); *id. Tab. List Austr. B.* p. 10 (1888).

Adult male. General colour above crimson; rump brown; upper tail-coverts bright crimson; wing-coverts and outer aspect of secondaries deep crimson; primaries brown, externally ochreous brown; tail-feathers crimson, all but the centre ones dusky on the inner webs; head and hind neck dull ashy brown, blacker on the crown; base of forehead, lores, eyebrow, sides of face, and under surface of body fiery crimson, with some white spots on the sides of the breast; centre of breast, abdomen, and under tail-coverts black; under wing-coverts fulvous; edge of wing crimson; quills dusky below, fulvescent along the inner web: "bill rich carmine, bounded at the base by a band of greyish white about one tenth of an inch in breadth; hinder part of tarsi and inside of the feet ochre-yellow, front of tarsi and upper surface of the feet ochre-yellow, strongly tinged with hyacinth-red" (*J. Gould*). Total length 5 inches, culmen 0.4, wing 2, tail 2.35, tarsus 0.55.

This species probably has a seasonal change, when the crimson back is obscured by ashy-grey edges to the feathers. The specimens which have the back more or less mixed with ashy grey are also paler ashy on the head and neck and lighter crimson on the face and underparts.

Adult female. Paler in colour than the male and having the back ashy brown, with very little crimson; the eyebrow, face, and throat paler crimson; the fore neck and chest ashy brown; the flanks lighter brown, tinged with crimson and with more frequent white spots than the male; breast and abdomen ochreous white. Total length 5 inches, culmen 0.5, wing 2.15, tail 2.6, tarsus 0.6.

Young. Distinguished by its dusky bill and nearly uniform ochre-

brown plumage; the upper tail-coverts and tail dull crimson, a slight tinge of the latter colour being apparent on the back and wing-coverts, with a little stronger shade on the secondaries.

Hab. Northern Australia from the north-west to Cape York and to Rockingham Bay and Port Denison (*E. P. R.*).

| | | |
|--------------------------------|--|-------------------------|
| <i>a-d.</i> Ad. ; <i>e, f.</i> | N.W. Australia. | J. R. Elsey, Esq. [P.]. |
| Juv. sk. | | |
| <i>g.</i> Imm. sk. | Port Essington (<i>J. B. Jukes</i>). | Voy. H.M.S. 'Fly.' |
| <i>A-k.</i> Ad. sk. | Port Essington. | Dr. Richardson [P.]. |
| <i>l.</i> Ad. st. | Port Essington. | Capt. Chambers [P.]. |
| <i>m-o.</i> ♂ ♀ ad. sk. | Cape York. | |
| <i>p.</i> Ad. st. | Queensland. | Mrs. Fitzgerald. |
| <i>q.</i> Ad. st. | N. Australia. | J. Gould, Esq. [P.]. |

41. ESTRILDA *.

| | Type. |
|---|------------------------|
| <i>Estrilda, Swains. Zool. Journ.</i> iii. p. 349 (1827) | <i>E. astrilda.</i> |
| <i>Habropyga, Cab. Arch. f. Naturg.</i> 1847, p. 331 (<i>nom. emend.</i>) | <i>E. astrilda.</i> |
| <i>Uræginthus, Cab. Mus. Hein. Th.</i> i. p. 171 (1850) | <i>E. phoenicotis.</i> |
| <i>Mariposa, Reichenb. Singv.</i> p. 48 (1861) | <i>E. angolensis.</i> |
| <i>Brunbilda, Reichenb. Singv.</i> p. 48 (1861) | <i>E. erythronota.</i> |
| <i>Haplopyga, Heugl. Orn. N.O.-Afr., App.</i> p. cxxxvii (1873) | <i>E. astrilda.</i> |

Range. Confined to Africa and Arabia. Introduced into Madagascar and the neighbouring islands, St. Helena, &c.

* The following species are unknown to me :—

ESTRILDA CAPISTRATA.

Estrilda capistrata, Hartl. J. f. O. 1861, p. 259; *Gray, Hand-l. B.* ii. p. 53, no. 6736 (1870); *Shelley, Ibis*, 1886, p. 330.

Supra olivaceo-viridis; capite, collo corporeque subtus cinereis; gula circumscripte nigra; rostro nigro. Long. circa 4". (*Hartlaub.*)

Hab. Bissao, Senegambia.

Key to the Species.

- a.* With the upper tail-coverts brown, barred with black and whitish cross-lines like the rump and back; under tail-coverts black [pp. 391, 393. *astrilda* and allies,
- b.* Upper tail-coverts black; upper surface more or less barred; under tail-coverts whitish
- a'.* Bill black; vermiculations on back and flanks coarse *rufibarba*, p. 394.
- b'.* Bill red; vermiculations almost obsolete *cinerea*, p. 394.
- c.* Upper tail-coverts crimson.
- c'.* Crown not black.
- a''.* Chin and side of face whitish or ashy.
- a'''.* Bill for the most part black; a broad crimson streak through the eye; wing-coverts washed with crimson *rhodopyga*, p. 396.
- b'''.* Bill orange; no red eye-streak; no red on wing-coverts; abdomen yellowish; under tail-coverts white *paludicola*, p. 397.
- b''.* Chin and sides of face black; upper surface vinous ashy, with dusky cross-bars; wings plainly barred.
- c'''.* Under tail-coverts black *erythronota*, p. 397.
- d'''.* Under tail-coverts white *chamosina*, p. 399.
nigrimentum, p. 399.
- d'.* Head black; back narrowly barred.
- c''.* Throat and breast dark grey; under tail-coverts black *atricapilla*, p. 399.
- d''.* Throat and breast white like the sides of the face; under tail-coverts also white *nonnula*, p. 400.
- d.* Upper tail-coverts verditer-blue.
- e'.* Ear-coverts crimson *phaenicotis*, p. 400.
- f'.* Ear-coverts blue *angolensis*, p. 402.

1. *Estrilda astrilda* *.

The Waxbill, *Edwards, Nat. Hist. B.* iv. p. 179, pl. 179. fig. 2 (1751);
id. Gleanings, iii. p. 289, pl. 354. fig. 2 (1764).

Le Senegali rayé, *Briss. Orn.* iii. p. 210, pl. x. fig. 5 (1760); *Daubent. Pl. Enl.* iv. pl. 157. fig. 2 (bad); *Montb. Hist. Nat. Ois.* iv. p. 101 (1778).

Fringilla undulata, *Pall. Adumbr.* p. 143.

Loxia astrild, *Linn. Syst. Nat.* i. p. 303 (1766); *Bodd. Tabl. Pl. Enl.* p. 10 (1783); *Gm. Syst. Nat.* i. p. 852 (1788); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 232 (1817).

Waxbill Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 152 (1783).

Astrild, *Vieill. Ois. Chant.* p. 35, pl. 12 (1805).

Fringilla astrild, *Vieill. Enc. Méth.* iii. p. 974 (1823); *Kittl. Küpf. Vög.* Heft i. p. 7, Taf. 10. fig. 2 (1832).

Estrela astrild, *Swains. Zool. Journ.* iii. p. 349 (1827); *Gray, Gen. B.* ii. p. 363 (1849); *Bp. Consp.* i. p. 458 (1850); *Strickl. & Schl. Contr. Orn.* 1852, p. 150; *Grill, Zool. Anteckn.* pp. 10, 23 (1850); *Newton, Ibis*, 1861, p. 272; *Gurney, Ibis*, 1862, pp. 31, 156;

* *Astrild* seems to have been a misprint for *astrilda*, which might be restored as having a more classical appearance. The generic name has been written *Estrilda*, *Estrela*, and *Astrilda*. I retain the name as written by Swainson.

Layard, B. S. Afr. p. 196 (1867); *Chapm. Trav. S. Afr.* ii. p. 402 (1868); *Schl. & Poll. Faune Madag., Ois.* p. 153 (1868); *Melliss, Ibis*, 1870, p. 100; *Gray, Hand-l. B.* ii. p. 50, no. 0685 (1870); *Sharpe, Cat. Afr. B.* p. 65 (1871); *Gurney in Anderss. B. Dam-Ld.* p. 178 (1872); *Ayres, Ibis*, 1873, p. 282; *Barratt, Ibis*, 1876, p. 208; *Ayres, l. c.* p. 433; *Hartk. Vög. Madag.* p. 402 (1877); *Sharpe in Oates' Matabele-Ld., App.* p. 320 (1881); *Bocage, Orn. Angola*, p. 358 (1881); *Shelley, Ibis*, 1882, p. 355; *Butler, Feilden, & Reid, Zool.* 1882, p. 299; *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 126, cum fig. (1882); *Sharpe, ed. Layard's B. S. Afr.* pp. 470, 849 (1884); *Shelley, Ibis*, 1883, p. 322; *Symonds, Ibis*, 1887, p. 333; *Büttik. Notes Leyden Mus.* x. p. 240 (1888).
Habropyga astrild, *Cab. Mus. Hein.* i. p. 169 (1850).
Egitha astrild, *Russ, Stubenv.* p. 43, Taf. i. fig. 2 (1879).

Adult male. General colour above earthy brown, with a slight reddish tinge on the rump and upper tail-coverts, the whole upper surface finely barred with dusky cross-lines; lesser and median coverts dusky brown, with less distinct fine barring; greater coverts like the back; bastard-wing, primary-coverts, and quills uniform brown, edged with paler brown, the innermost secondaries obsoletely barred with dusky; tail-feathers dusky brown, edged with paler brown, the centre ones with obsolete cross-bars and washed with reddish near the base; the outer webs of all the feathers paler underneath; crown of head rather more ashy than the back, the fore part more uniform and the fine barring also not so distinct on the hinder crown and nape; lores and feathers round the eye crimson, forming a longitudinal streak; ear-coverts pale ashy grey; cheeks and throat light ashy, washed with rosy pink; sides of neck like the hind neck; fore neck and remainder of under surface light ashy brown, barred with fine lines of darker brown; breast uniform rosy pink in the centre; lower abdomen black like the under tail-coverts; sides of body and flanks like the rest of the under surface, but rather more coarsely barred; thighs uniform ashy brown; under wing-coverts ochreous buff; axillaries light ashy brown; quills below dusky, ashy ochreous along the inner web: "bill bright red; legs and feet liver-brown; iris brown" (*C. J. Andersson*). Total length 4.2 inches, culmen 0.35, wing 1.85, tail 1.0, tarsus 0.55.

Adult female. Differ in colour from the male, with more rosy pink

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|--|--|-----------------------------------|
| <i>g.</i> ♂ ad. sk. | Natal, July (<i>Dr. Gueinzius</i>). | Gould Coll. |
| <i>h.</i> Ad. sk. | Pretoria (<i>Pratt</i>). | Shelley Coll. |
| <i>i-n.</i> ♂ ad.; <i>o-r.</i> ♀ ad. sk. | Natal, March, June, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>s, t.</i> ♂; <i>u.</i> ♀ ad. sk. | Newcastle, June, July (<i>E. A. Butler</i>). | Shelley Coll. |
| <i>v, w.</i> ♂ ♀ ad. sk. | Weenen, Natal, Dec. (<i>T. Arnold</i>). | Forbes Coll. |
| <i>x, y.</i> Ad. sk. | Natal. | T. Ayres [C.]. |
| <i>z, a'.</i> ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |
| <i>b'.</i> Ad. sk. | Lydenberg, E. Transvaal. | F. A. Barratt, Esq. [P.]. |
| <i>c', d'.</i> ♂ ad. sk. | Tati, Matabele-Land, Oct. (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.]. |
| <i>e', f', g'.</i> Ad. sk. | Hykomkap, Damara-Land, April (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>h', i'.</i> Ad. sk. | Mauritius (<i>Bewsher</i>). | Shelley Coll. |
| <i>k'.</i> Ad. sk. | Madagascar. | Sharpe Coll. |

Subsp. α. **Estrilda rubriventris.**

- L'Astrild à ventre rouge*, *Vieill. Ois. Chant.* p. 36, pl. 13 (1806).
Fringilla rubriventris, *Vieill. Enc. Méth.* iii. p. 992 (1823).
Estrela occidentalis, *Jard. & Fraser, Contr. Orn.* 1851, p. 156; *Hartl. Orn. Westafr.* p. 140 (1857).
Estrela rubriventris, *Gray, Gen. B.* ii. p. 369 (1849); *Hartl. Orn. W.-Afr.* p. 141 (1857); *id. J. f. O.* 1861, p. 258; *Cass. Proc. Philad. Acad.* 1859, p. 138; *Bocage, Journ. Lisb.* ii. p. 141 (1867).
Estrela cinerea ♂, *Hartl. Orn. W.-Afr.* p. 141 (1857).
Estrela undulata (*nec Pall.*), *Reichen. J. f. O.* 1877, p. 29.

Adult. Similar to *E. astrilda*, but having all the colours much richer, the whole upper surface being washed with crimson, which is especially bright on the rump and upper tail-coverts; the sides of the face and under surface of the body, including the flanks, strongly suffused with crimson. Total length 4·2 inches, culmen 0·35, wing 1·75, tail 1·7, tarsus 0·65.

Hab. Gaboon to Angola.

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|----------------------|--|---------------|
| <i>a, b.</i> Ad. sk. | Gaboon. | |
| <i>c, d.</i> Ad. sk. | Landana, Congo (<i>Lucan & Petit</i>). | Shelley Coll. |
| <i>e, f.</i> Ad. sk. | Quilombo, Angola (<i>A. Heath</i>). | Sharpe Coll. |

Subsp. β. **Estrilda minor.**

- Estrela cærulescens* (*nec V.*), *Rüpp. Neue Wirb., Vög.* p. 101 (1835-40); *id. Syst. Uebers.* p. 77 (1845); *Heugl. Syst. Uebers.* p. 40 (1856).
Fringilla rubriventris (*nec V.*), *Des Murs in Lefebvre's Voy. Abyss.* p. 172 (1845).
Estrela astrild (*nec L.*), *Mont. P. Z. S.* 1865, p. 95; *Heugl. J. f. O.* 1868, p. 7; *id. Orn. N.O.-Afr.* i. pt. 2, p. 603 (1870).
Habropyga astrild, *Cab. in Von der Decken's Reis., Vög.* iii. p. 30 (1869); *Finsch & Hartl. Vög. Ostaf.* p. 439 (1870); *Böhm, J. f. O.* 1883, p. 201; *id. J. f. O.* 1885, p. 42; *Schalow, J. f. O.* 1886, p. 422; *Reichen. J. f. O.* 1887, p. 300.

Habropyga minor, *Cab. J. f. O.* 1878, p. 229.

Habropyga astrild, var. *minor*, *Fischer, Zeitschr. ges. Orn.* i. p. 325 (1884).

Habropyga astrild minor, *Fischer, J. f. O.* 1885, p. 135.

Adult. Similar to *E. astrilda*, but darker, with a dusky head, and distinguished by its sharply defined white face and throat: "bill coral-red; feet blackish; iris umber-brown; eyelid crimson" (*Von Heuglin*). Total length 4 inches, culmen 0.35, wing 1.65, tail 1.5, tarsus 0.55.

Hab. From Benguela in the west and the Zambesi in the east throughout Eastern Africa, and from the Upper Congo and the Lake country to Abyssinia and Southern Nubia.

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|---------------|-----------------------------------|--------------------|
| a. ♂ ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Museum. |
| b, c. Ad. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. |
| d, e. Ad. sk. | Pangani (<i>Sir J. Kirk</i>). | Shelley Coll. |
| f, g. Ad. sk. | Ugogo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| h. ♂ ad. sk. | Kibiro, Upper Congo. | F. Bolindorff [C.] |
| i. Ad. sk. | Gaboon (<i>Du Chaillu</i>). | Sharpe Coll. |
| k. Ad. sk. | Benguela. | Monteiro Coll. |
| l. Ad. sk. | Shirè Valley, Zambesi. | Sir J. Kirk [P.] |

2. *Estrilda rufibarba*.

Fringilla rufibarba, *Ehrenb. in Mus. Berol.*

Fringilla buccalis, *Ehrenb. in Mus. Berol.*

Habropyga rufibarba, *Cab. Mus. Hein. Th. i.* p. 169, note (1850).

Estrela rufibarba, *Licht. Nomencl. Av. Berol.* p. 48 (1854); *Heugl.*

J. f. O. 1868, p. 7; *Gray, Hand-l. B.* ii. p. 50, no. 6693 (1870);

Yerbury, Ibis, 1886, p. 18; *Shelley, t. c.* p. 334.

Estrela buccalis, *Licht. Nomencl.* p. 48 (1854).

Adult. General colour above ashy brown, crossed with wavy cross bars of dusky blackish; lower rump and upper tail-coverts black; wing-coverts like the back; quills dusky brown, the secondaries externally barred; centre tail-feathers black, the outer feathers ashy white along the outer web, which is slightly barred with ashy; head like the back, but the barring almost obsolete; a line of pale crimson from the lores running through the eye; sides of face, ear-coverts, and throat distinctly white; breast and sides of

Fringilla troglodytes, *Licht. Verz. Doubl.* p. 26 (1823); *Antin. Cat. descr. Ucc.* p. 71 (1864); *Salvad. Atti R. Accad. Torino*, v. p. 741 (1870).

Estrela cinerea, *Rüpp. Neue Wirb., Vög.* p. 101 (1835-40); *id. Syst. Uebers.* p. 77 (1845); *Gray, Gen. B.* ii. p. 369 (1849); *Bp. Consp. Av.* i. p. 459 (1850); *Heugl. Syst. Uebers.* p. 40 (1856); *Hartl. Orn. W.-Afr.* p. 141 (1857); *Heugl. J. f. O.* 1863, p. 6; *Gray, Hand-l. B.* ii. p. 50, no. 6690 (1870); *Sharpe, Cat. Afr. B.* p. 65 (1871); *Hartl. Abhandl. nat. Verein. Bremen*, Band vii. p. 103 (1881); *Forbes, Ibis*, 1881, pp. 524, 530; *Shelley, t. c.* p. 555; *id. Ibis*, 1886, p. 333; *id. P. Z. S.* 1888, p. 32.

Estrela troglodytes, *Bp. Consp. Av.* i. p. 459 (1850).

Habropyga cinerea, *Cab. Mus. Hein.* i. p. 169 (1850); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 600, iv. App. p. cxxxvi (1871); *Matschie, J. f. O.* 1887, p. 154.

Astrilda cinerea, *Reichenb. Singv.* p. 9, pl. ii. figs. 10, 11 (1861).

Astrilda nigricauda, *Reichenb. Singv.* p. 10, pl. vi. figs. 55, 56.

Estrela melanopygia, *Heugl. J. f. O.* 1864, p. 251.

Ægintha cinerea, *Russ, Stubenv.* p. 36, Taf. i. fig. 1 (1879).

Adult female. General colour above drab-brown, faintly barred with dusky cross lines; wing-coverts nearly uniform ashy brown, the margins slightly paler; bastard-wing, primary-coverts, and quills light brown, margined with ashy brown; upper tail-coverts and tail feathers black, with whitish borders to the outer webs of the two outermost feathers; crown of head almost uniform, a little more ashy than the back, the dusky cross lines almost obsolete; lores, eyelid, and a streak above the ear-coverts crimson; ear-coverts pale ashy, hoary below the eyes and on the fore part of the cheeks, which are otherwise pale rosy lilac, the throat and under surface of body with scarcely any cross lines; abdomen isabelline, with a rosy patch in the middle; sides of body and flanks pale drab-brown, with nearly obsolete dusky cross lines; thighs pale brown; under tail-coverts white; under wing-coverts isabelline; quills below dusky, ashy isabelline on the inner edge. Total length 4 inches, culmen 0.35, wing 1.9, tail 1.55, tarsus 0.5.

The *adult male* is doubtless similar to the female, but probably brighter in colour.

Young male. Browner than the adults and without wavy cross lines; bill blackish; no crimson eye-streak; under surface of body isabelline brown, the throat slightly more ashy.

Hab. Senegambia to the River Niger, across to North-eastern Africa and Equatorial Africa, south to the Tanganyika district.

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| <i>a-c.</i> Ad. sk. | Senegambia. | Sharpe Coll. |
| <i>d.</i> Ad. sk. | River Gambia. | Shelley Coll. |
| <i>e.</i> ♀ ad. sk. | Dakar, Senegal (<i>L. Laglaize</i>). | Tweeddale Coll. |
| <i>f.</i> Ad. sk. | Denkera, Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| <i>g-i.</i> ♀ ad. sk. | Shonga, River Niger (<i>W. A. F.</i>). | Forbes Coll. |
| <i>k.</i> Ad. sk. | White Nile. | Sharpe Coll. |
| <i>l, m.</i> ♀ ad. sk. | Lado, Equatorial Africa, May (<i>Emin Pasha</i>). | Shelley Coll. |
| <i>n.</i> ♀ ad. sk. | Redjaf, July (<i>Emin Pasha</i>). | Shelley Coll. |
| <i>o, p.</i> ♂ ♀ imm. sk. | Wadelai, Aug. 3. | Emin Pasha [P.]. |

4. *Estrelda rhodopyga*.

Estrelda rhodopyga, *Sundev. Öfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 126; *Gray, Hand-l. B.* ii. p. 50, no. 6692 (1870); *Blanf. Geol. & Zool. Abyss.* p. 408 (1870); *Shelley, Ibis*, 1886, p. 333; *Hartl. Zool. Jahrb.* ii. p. 322 (1887); *Shelley, P. Z. S.* 1888, p. 32.

Estrelda rhodoptera, "*Sundev.*," *Bp. Consp.* i. p. 459 (1850, *nec Sundev.*).

Habropyga frenata, *Cab. Mus. Hein. Th.* i. p. 169, note (*ex Ehrenb. MSS. in Mus. Berol.*); *Heugl. Orn. N.O.-Afr.* i. p. 605 (1870).

Habropyga rhodoptera, *Cab. Mus. Hein. Th.* i. p. 169, note (1850, *ex Bp.*).

Estrelda effrenata, *Licht. Nomencl. Av.* p. 48 (1854); *Heugl. J. f. O.* 1868, p. 9.

Astrilda rhodoptera, *Reichenb. Singv.* p. 11 (1861, *ex Bp.*).

Astrilda frenata, *Reichenb. t. c.* p. 11 (1861).

Estrelda leucotis, *Heugl. J. f. O.* 1862, p. 29.

Estrelda frenata, *Heugl. J. f. O.* 1868, p. 8.

Habropyga rhodopyga, *Finsch, Trans. Z. S.* vii. p. 266 (1870); *id. & Hartl. Vög. Ostaf.* p. 441 (1870); *Heugl. Orn. N.O.-Afr.* iv. App. p. cxxxvii (1871).

Adult male. General colour above light brown, barred with dusky; the head more ashy and less distinctly barred; upper tail-coverts rosy crimson; lesser wing-coverts like the back, with obsolete dusky vermiculations; median series ashy brown; greater coverts ashy brown, washed with crimson externally and forming a broad crimson band, the inner secondaries also similarly washed with crimson; quills dusky brown, edged with ashy brown; tail-feathers dusky blackish, edged with crimson, the outer ones margined with whity brown; a crimson streak from the lores through the eye, with a supraloral streak of ashy whitish; cheeks, sides of face, and throat white; remainder of under surface of body light tawny brown, with narrow bars of hoary whitish on the sides of the fore neck, breast, and flanks; centre of breast and abdomen paler tawny buff; thighs tawny buff; under tail-coverts deep crimson, freckled with tawny and blackish bars; under wing-coverts and axillaries tawny buff; quills dusky below, pale fulvescent along the inner web: "bill blackish, the tomium and base of the mandible red;

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| c. Ad. sk. | Bejook, Bogos-Land, July 17 (<i>W. Jesse</i>). | Tweeddale Coll. |
| d. Ad. sk. | Lado, Equatorial Africa (<i>Emin Pasha</i>). | Shelley Coll. |
| e, f, g. ♂ ad. et juv.;
h, i. ♀ ad. sk. | Wadelai, Sept., Oct. | Emin Pasha [P.]. |

5. *Estrilda paludicola*.

Estrela paludicola, *Heugl. J. f. O.* 1863, p. 163, 1868, p. 9, pl. i. fig. 2 (♀); *Shelley, Ibis*, 1886, p. 331; *Hartl. Zool. Jahrb.* ii. p. 321 (1887); *Shelley, P. Z. S.* 1836, p. 33.

Habropyga palustris, *Heugl. in Peterm. Geogr. Mitth.* 1869, p. 415.

Estrela rhodopsis, pt., *Gray, Hand-l. B.* ii. p. 50, no. 6701 (1870).

Habropyga paludicola, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 606 (1870); *id. op. cit.* iv. App. p. cxxxvi (1871).

Adult male. General colour above brown, with indications of obsolete cross markings; wing-coverts like the back, the greater series and quills dusky brown, edged with the same brown as the back; lower rump and upper tail-coverts rosy crimson; tail-feathers black, the outer feathers ashy whitish along the outer web; crown of head ashy grey, forming a tolerably distinct cap; lores white as well as the eyelid; sides of face and ear-coverts lighter and more pearly grey; cheeks, throat, and under surface of body ochreous buff, shaded with ashy over the throat and fore neck, and clearer ochreous on the abdomen; sides of body and flanks ashy brown, rather deeper on the latter; thighs ashy grey; under tail-coverts white: "bill coral-red; feet blackish; iris red" (*Emin*). Total length 4·2 inches, culmen 0·3, wing 1·8, tail 1·85, tarsus 0·55.

Adult female. Similar to the male in colour. Total length 4·1 inches, culmen 0·35, wing 1·85, tail 1·65, tarsus 0·6.

Hab. White Nile districts to Equatorial Africa.

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| a. ♀ ad. sk. | Lado, Equatorial Africa, Jan. 31 (<i>Emin Pasha</i>). | Shelley Coll. |
| b. ♀ ad. sk. | Tingasi, July 3. | Emin Pasha [P.]. |

6. *Estrilda erythronota*.

Astrild à moustaches noires, *Vieill. Ois. Chant.* p. 37, pl. 14 (1805).
Fringilla erythronotos, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 182 (1817).

Estrela lipiniana, *Smith, Rep. Expl. C. Afr.*, App. p. 49 (1836); *Strickl. & Schl. Contr. Orn.* 1852, p. 150.

Estrela erythronota, *Gray & Mitch. Gen. B.* ii. p. 368, pl. 90. fig. 1 (1849); *Bp. Consp. Av.* i. p. 459 (1850); *Reichenb. Singv.* p. 11, Taf. ii. fig. 13 (1861); *Layard, B. S. Afr.* p. 198 (1867); *Gray, Hand-l. B.* ii. p. 50, no. 6700 (1870); *Ayres, Ibis*, 1871, p. 256; *Gurney in Anderss. B. Dam.-Ld.* p. 178 (1872); *Sharpe in Oates' Matabele-Land*, App. B, p. 320 (1881); *Shelley, Ibis*, 1882, p. 355; *Sharpe, ed. Layard's B. S. Afr.* p. 473 (1884); *Shelley, Ibis*, 1886, p. 320.

Habropyga erythronota, *Cab. Mus. Hein.* i. p. 160, note (1850);
Fischer, Zeitschr. ges. Orn. i. p. 324 (1884); *id. J. f. O.* 1885,
 p. 135.

Adult male. General colour above ashy grey, with a vinous or crimson tinge and crossed with delicate dusky bars, a little more distinct on the scapulars; lower back, rump, and upper tail-coverts deep crimson; wing-coverts like the back, the cross bars more distinct on the median and greater coverts; bastard-wing and primary-coverts uniform dusky brown; quills dusky brown, with slightly indicated bars of ashy and black near the base, these bars very distinct on the inner secondaries, which are like the greater coverts; tail-feathers entirely black, the outer ones ashy towards the ends, with dusky bars; crown of head ashy grey, the cross vermiculations very delicate and indistinct; forehead slightly more hoary; lores, eyebrow, sides of face, ear-coverts, and cheeks black, with a silvery-grey shade on the hinder cheeks, extending behind the ear-coverts; chin black; throat, sides of neck, and under surface of body ashy grey, slightly vermiculated with dusky cross bars and washed with crimson, becoming more uniform deep crimson on the breast; abdomen blackish; sides of body ashy brown with dusky cross bars; flanks crimson with dusky bars; thighs and under tail-coverts black; under wing-coverts and axillaries ashy, barred with dusky; quills below dusky, ashy along the inner edge: "bill black, except near the head, where it is whitish blue; feet and toes black; iris wine-coloured red" (*C. J. Andersson*). Total length 4·3 inches, culmen 0·35, wing 2·1, tail 2·35, tarsus 0·55.

Adult female. Not to be distinguished from the male. Total length 4·7 inches, culmen 0·35, wing 2·15, tail 2·2, tarsus 0·55.

Young. Browner than the adults, with less distinct crimson shade above and below; rump duller crimson.

Hab. Interior of South Africa to the Matabele country on the east and to Damara-Land on the west. It is said to extend as far as the Kilimanjaro district by Dr. Fischer.

a, b ♂ ♀ ad. sk. Transvaal (*T. Ayres*).

Sharpe Coll.

7. *Estrilda charmosyna*.

Habropyga charmosyna, *Reichen. J. f. O.* 1881, p. 333; *Fischer, Zeitschr. ges. Orn.* i. p. 325 (1834).

Estrela charmosyna, *Shelley, Ibis*, 1836, p. 330.

Adult. Pale vinaceous, greyish on the upper surface; head, neck, back, and throat obscurely barred; forehead whitish; sides of head black, edged with white below; rump and upper tail-coverts red; under tail-coverts white; tail-feathers and inner secondaries barred with black and white; quills dusky; tail graduated and black: bill dusky lead-colour; feet black. Total length 4·3 inches, culmen 0·3, wing 2, tail 2·25. (*Reichenow.*)

Hab. Berdera, E. Africa.

8. *Estrilda nigrimentum*.

Estrela nigrimentum, *Salvad. Ann. Mus. Genov.* (2) vi. p. 281 (1888).

Adult. Similar to *E. charmosyna*, but larger and with the chin black; the cheeks black behind and below, margined with white; the reddish vinous colour of the under surface brighter and the under tail-coverts distinctly banded (*Salvadori*).

Hab. Shoa.

9. *Estrilda atricapilla*.

Estrela atricapilla, *J. & E. Verreaux, Rev. et Mag. de Zool.* 1851, p. 421; *Hartl. Orn. W.-Afr.* p. 141 (1857); *Cuss. Proc. Philad. Acad.* 1859, p. 138; *Hartl. J. f. O.* 1861, p. 258; *Gray, Hand-l. B.* ii. p. 50, no. 6697 (1870); *Reichen. J. f. O.* 1875, p. 41; *Shelley, Ibis*, 1886, p. 330.

Adult. General colour above dark cindery grey, the back barred with wavy cross lines of black; the lower back, rump, and upper tail-coverts light scarlet; scapulars and wing-coverts like the back, and similarly barred; bastard-wing, primary-coverts, and quills black, the inner secondaries barred externally with ashy grey and black; tail black; crown black, separated from the barred back by a collar of cindery grey; sides of face and chin ashy white, shading off into the cindery grey of the lower throat and breast; the lower abdomen blackish, as also the thighs and under tail-coverts; sides of breast and flanks bright scarlet; under wing-coverts and axillaries ashy whitish; quills blackish below, ashy along the inner web. Total length 3·7 inches, culmen 0·35, wing 1·8, tail 1·7, tarsus 0·55.

Young. Much more dingy than the adults, with the scarlet on the back and rump much duller; underneath dark cindery grey, with scarcely any scarlet on the flanks.

Hab. W. Africa from Cameroons to Gaboon.

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| <i>a, b, c.</i> Ad. sk. | Gaboon (<i>Du Chaillu</i>). | |
| <i>d.</i> Ad. sk. | River Danger, Gaboon (<i>H. T. Ansell</i>). | Shelley Coll. |
| <i>e.</i> Ad. sk. | Gaboon. | M. Verreaux. |
| <i>f.</i> Ad. st. | Gaboon. | M. Verreaux. |
| <i>g.</i> Ad. sk. | C. meroons. | Sharpe Coll. |

10. *Estrilda nonnula*.

Astrilda nonnula, *Hartl. J. f. O.* 1863, p. 425.

Estrela nonnula, *Shelley, Ibis*, 1886, p. 330; *Hartl. Zool. Jahrb.* ii. p. 321, pl. xiii. fig. 5 (1887); *Shelley, P. Z. S.* 1888, p. 31; *Hartl. J. f. O.* 1889, p. 40.

Habropyga tenerrima, *Reichen. J. f. O.* 1887, p. 307.

Adult male. Similar to *E. atricapilla*, but white underneath and on the sides of the face; sides of body and under tail-coverts washed with ashy, with a patch of rosy crimson of the sides: "bill crimson, the base of culmen, sides and base of bill black; feet black; iris dusky" (*Emin Pasha*). Total length 4·3 inches, culmen 0·4, wing 1·9, tail 1·75, tarsus 0·6.

Young female. More dusky and uniform in colour than the adult male, the white of the face and underparts shaded with ashy, the sides of the body with brown, and lacking the crimson patch on the latter; the crimson on the rump and upper tail-coverts duller.

Hab. Equatorial Africa to the Upper Congo.

- | | | |
|----------------|-----------------------------------|------------------|
| a, b. ♂ ad.; ♀ | Foda, Equatorial Africa, Oct. 27. | Emin Pasha [P.]. |
| juv. sk. | | |
| c. ♂ ad. sk. | Bellima, June 20. | Emin Pasha [P.]. |
| d. ♂ imm. sk. | Kubbi, July. | Emin Pasha [P.]. |

11. *Estrilda phoenicotis*.

Le Bengali, *Brisson, Orn.* iii. p. 203, pl. x. fig. 1 (1760); *Montb. Hist. Nat. Ois.* iv. p. 92 (1778); *Daubent. Pl. Enl.* iv. pl. 115. fig. 1.

Fringilla bengalus, *Linn. Syst. Nat.* i. p. 323 (1760); *Gm. Syst. Nat.* i. p. 920 (1788); *Vieill. Enc. Méth.* p. 987 (1823); *Küttl. Kupf. Vög.* p. 7, Taf. x. fig. 3 (1832).

Blue-bellied Finch, *Lath. Gen. Syn.* ii. pt. i. p. 310 (1783); *Shaw & Nodd. Nat. Misc.* v. pl. 150 (1793).

Le Mariposa ou le Bengali bleu, *Vieill. Ois. Chant.* p. 25, pl. 5 (1805).

Estrela bengalus, *Less. Traité*, p. 444 (1831); *Rüpp. Neue Wirb., Vög.* p. 101 (1835); *id. Syst. Uebers.* p. 77 (1845); *Gray, Gen. B.* ii. p. 368 (1849); *Heugl. Syst. Uebers.* p. 40 (1860); *Gray, Hand-l. B.* ii. p. 51, no. 6707 (1870).

Estrela mariposa, *Less. Traité*, p. 444 (1831).

Estrela phoenicotis, *Savane B. II. Afr.* i. p. 192, pl. xiv. (1837);

- Pytelia phœnicotis*, *Finsch & Hartl. Vög. Ostaf. p. 447* (1870);
Blanf. Geol. & Zool. Abyss. p. 409 (1870); *Cab. J. f. O.* 1878,
 p. 265.
Estrela cyanogastra (*nec Daud.*), *Sharpe, P. Z. S.* 1873, p. 717;
Nicholson, P. Z. S. 1878, p. 358.
Ægintha phœnicotis, *Russ, Stubenv. p. 93* (1879).
Mariposa phœnicotis, *Gurney, Ibis*, 1881, p. 128.
Astrilda phœnicotis, *Hartl. Abhandl. nat. Verein. Bremen*, Bd. vii.
 p. 103 (1881).
Estrela angolensis (*nec Linn.*), *Shelley, Ibis*, 1886, p. 336 (pt.);
Reichen. J. f. O. 1887, p. 308.

Adult male. Above light drab-brown, the wing-coverts like the back; quills dusky brown, edged with the pale brown of the back; lower back, rump, and upper tail-coverts pale verditer-blue; tail-feathers dusky verditer-blue, rather lighter externally; head like the back, with the base of the forehead, eyebrow, lores, sides of face, cheeks, throat, and breast bright verditer-blue, extending along the sides of the body; ear-coverts bright crimson, forming a conspicuous patch; centre of breast, abdomen, thighs, and under tail-coverts, as well as the under wing-coverts, light drab; quills dusky below, pale drab along the inner web: "bill reddish, the tip and cutting-edges blackish; feet reddish; iris yellowish" (*Heuglin*). Total length 4·7 inches, culmen 0·4, wing 2·1, tail 2·25, tarsus 0·55.

Adult female. Similar to the male, but wanting the red ear-patch. Total length 4·3 inches, culmen 0·4, wing 2·1, tail 1·95, tarsus 0·65.

Young male. Similar to the adult female, but with the sides of the face browner with very little blue.

The male from Kassongo is much more brilliantly coloured than the rest of the series. The blue is more cobalt than verditer, the back is darker and more ashy brown, and the crimson of the ear-coverts is darker.

Hab. Senegambia to Gaboon. N.E. Africa and Eastern Africa as far south as the Zanzibar district; Equatorial Africa and the Cougo River.

| | | |
|--|---|-------------------------------|
| <i>a, b.</i> ♂ ad. sk. | Senegambia. | Shelley Coll. |
| <i>c, d.</i> ♂ ♀ ad. sk. | River Gambia. | Sharpe Coll. |
| <i>e.</i> ♂ ad. sk. | Senafé, Abyssinia, March. | W. T. Blanford, Esq.
[C.]. |
| <i>f, g.</i> ♂ ♀ ad. sk. | Senafé, May (<i>W. Jesse</i>). | Tweeddale Coll. |
| <i>h.</i> ♀ ad. sk. | Anseba Valley, Bogos-
Land, July 28, 1868. | W. T. Blanford, Esq.
[C.]. |
| <i>i, k.</i> ♀ ad. sk. | Bejook, July. | W. Jesse, Esq. [C.]. |
| <i>l.</i> ♂ ad. sk. | Keren (<i>Esler</i>). | Sharpe Coll. |
| <i>m, n.</i> ♂ ♀ ad. sk. | Shoa, May, Aug. (<i>O. An-
tinori</i>). | Shelley Coll. |
| <i>o, p.</i> ♂ ♀ ad. sk. | White Nile (<i>Brun-Rollet</i>). | Sharpe Coll. |
| <i>q.</i> ♂ ad.; <i>r, s.</i> ♀
ad. sk. | Lado, Equatorial Africa,
Feb. (<i>Emin Pasha</i>). | Shelley Coll. |
| <i>t.</i> ♀ ad. sk. | Sobat, June (<i>Emin Pasha</i>). | Shelley Coll. |
| <i>u.</i> ♂ ad. sk. | Lamu (<i>Sir J. Kirk</i>). | Shelley Coll. |

| | | |
|------------------------|---|----------------------------|
| v, w. ♂ ; x. ♀ ad. sk. | Mombasa. | Rev. A. F. Buxton
[P.] |
| y, z. ♀ ad. sk. | Mombasa, July, Aug.
(Dr. Hildebrandt). | Shelley Coll. |
| α'. ♀ ad. sk. | Dar-es-Salaam (Sir J.
Kirk). | Shelley Coll. |
| β'. ♀ ad. sk. | Rovuma River (J. Thom-
son). | Shelley Coll. |
| γ'. ♂ ad. sk. | Kassongo, Upper Congo,
June. | F. Bohndorff [C.] |
| δ'. Ad. sk. | Congo. | Commander Sperling
[P.] |

12. *Estrilda angolensis*.

- The Blue-bellied Finch, *Edwards, Nat. Hist. B.* iii. pl. 131 (1750).
Fringilla angolensis, *Linn. Syst. Nat.* i. p. 323 (1766).
Loxia cyanogastra, *Daud. Traité*, ii. p. 436 (1800).
Estrela angolensis, *Bp. Consp. Av.* i. p. 458 (1850); *Shelley, Ibis*,
 1886, p. 336 (pt.).
Estrilda bengala (nec Linn.), *Layard, B. S. Afr.* p. 199, pt. (1867);
Ayres, Ibis, 1869, p. 294.
Mariposa cyanogastra, *Gurney in Anders. B. Dam.-Ld.* p. 179
 (1872).
Estrilda cyanogastra, *Buckley, Ibis*, 1874, p. 382; *Barratt, Ibis*,
 1876, p. 207; *Ayres, Ibis*, 1880, p. 107; *Sharpe in Oates' Mala-
 bele-Land*, App. B, p. 321 (1881).
Uræginthus phœnicotis (nec Linn.), *Bocage, Orn. Anyola*, p. 354
 (1881); *Butler, Feilden, & Reid, Zoologist*, 1882, p. 300; *Shelley*,
Ibis, 1882, p. 355.
Mariposa phœnicotis (nec Linn.), *Holub & von Pelz. Beitr. Orn.*
Südaf. p. 129 (1882).
Uræginthus cyanogaster, *Sharpe, ed. Layard's B. S. Afr.* pp. 473,
 860 (1884).

Adult male. Similar to *E. phœnicotis*, but wanting the red ear-
 patch, so that it resembles the female of that species more than the
 male: "bill lilac, blackish at the tip; tarsi and feet pale; iris red-
 dish hazel" (*T. Ayres*); "iris cherry-colour" (*C. J. Andersson*);
 "iris orange-red" (*T. E. Buckley*). Total length 4.9 inches, culmen
 0.4, wing 2.05, tail 2.2, tarsus 0.55.

| | | |
|--------------------------------------|--|-------------------------------------|
| <i>k, l.</i> ♂ ; <i>m.</i> ♀ ad. sk. | Tati, Matabele-Land, Oct.,
March (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |
| <i>n.</i> Ad. sk. | Zambesi. | Sir J. Kirk [P.] |
| <i>o, p.</i> Ad. sk. | Tete, Zambesi. | Livingstone Exped. |
| <i>q, r.</i> ♂ ♀ ad. sk. | Mozambique. | Dr. Gueinzus [C.] |
| <i>s.</i> ♀ ad. sk. | Elephant Vley, Damara-
Land, Aug. (<i>C. J. An-
dersson</i>). | Sharpe Coll. |
| <i>t.</i> ♀ ad. sk. | Ondonga, Ovampo-Land,
Nov. (<i>C. J. A.</i>). | Sharpe Coll. |

42. GRANATINA*.

Range. Confined to South Africa.

1. *Granatina granatina*.

The Red and Blue Brazilian Finch, *Edwards, Nat. Hist. B.* iv. pl. 191 (1751).

Le Grenadin, *Briss. Orn.* iii. p. 216, pl. ix. fig. 3 (1760); *Montb. Hist. Nat. Ois.* iv. p. 169, pl. vii. fig. 1 (1778); *Vieill. Ois. Chant.* p. 40, pls. 17, 18 (1805).

Fringilla granatina, *Linn. Syst. Nat.* i. p. 318 (1766); *Gm. Syst. Nat.* i. p. 906 (1788); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 180 (1817).

Grenadin, de la côte d'Afrique, *Daubent. Pl. Enl.* iv. pl. 109. fig. 3.

Brazilian Finch, *Lath. Gen. Syn.* ii. pt. i. p. 316 (1783).

Loxia granatina, *Daud. Traité*, ii. p. 446 (1800).

Estrela granatina, *Gray, Gen. B.* ii. p. 368 (1849); *Bp. Consp. Av.* i. p. 458 (1850); *Strickl. & Schl. Contr. Orn.* 1852, p. 150; *Hartl. Orn. W.-Afr.* p. 144 (1857); *id. J. f. O.* 1861, p. 258; *Layard, B. S. Afr.* p. 199 (1867); *Chapman, Trav. S. Afr.* ii. App. p. 402 (1868); *Gray, Hand-l. B.* ii. p. 51, no. 6706 (1870); *Ayres, Ibis*, 1871, p. 256; *Buckley, Ibis*, 1874, p. 382; *Ayres, Ibis*, 1880, p. 107; *Sharpe in Oates' Matabele-Land*, App. B, p. 321 (1881); *Shelley, Ibis*, 1886, p. 335.

Uræginthus granatinus, *Cab. Mus. Hein.* i. p. 171 (1850); *Gurney in Anderss. B. Dam.-Ld.* p. 180 (1872); *Bocage, Orn. Angola*, p. 353 (1881); *Holub & von Pelz. Beitr. Orn. Südaf.* p. 129 (1882); *Shelley, Ibis*, 1882, p. 355; *Sharpe, ed. Layard's B. S. Afr.* pp. 474, 850 (1884).

Mariposa granatina, *Reichenb. Singv.* p. 7, Taf. i. figs. 4, 5 (1861).

Ægintha granatina, *Russ, Stubenv.* p. 100 (1879).

Adult male. General colour above chestnut-brown, the lower back ashy; scapulars like the back; wing-coverts and quills ashy brown, narrowly edged with reddish brown; upper tail-coverts deep metallic cobalt; tail-feathers black, with a bluish shade on the margins; head chestnut like the back; base of forehead cobalt, forming a narrow line which reaches above the eye; lores dusky; eyebrow, ear-coverts, and sides of face beautiful lilac; base of cheeks, chin,

* 'Granatinæ' was the name proposed by Bonaparte for a section of the genus *Estrela* (*Consp.* i. p. 458). It has been mentioned by several authors as a genus *Granatina*, and for that reason I retain the name, but it has never been described.

and upper throat black, disappearing gradually on the lower throat; the whole of the under surface from the lower throat downwards rich chestnut; lower abdomen and vent blackish; under tail-coverts cobalt-blue like the upper tail-coverts; quills ashy whitish, slightly washed with tawny rufous; quills dusky brown, whitish along the inner web: "bill purplish, but red at the extremity; the legs purplish grey; iris red, and the naked ring round the eye usually red also, but sometimes of a greyish drab" (*C. J. Andersson*). Total length 5·3 inches, culmen 0·4, wing 2·3, tail 2·75, tarsus 0·6.

The intensity of the lilac colour on the face and the extent of black on the abdomen vary considerably in a series of male birds.

Adult female. Different from the male. Ashy brown with a little chestnut shade on the head, the throat whitish; the fore neck and the rest of the under surface pale tawny buff; on the forehead a little blue, and the lilac of the face paler than in the adult; otherwise like the male. Total length 5·3 inches, culmen 0·4, wing 2·2, tail 2·55, tarsus 0·65.

Young. Similar to the old female but almost entirely brown, rather tawny underneath.

Hab. South Africa, to the Zambesi on the east and to Angola on the west. This last record seems somewhat doubtful.

| | | | |
|--------------------------------------|--|----------------------------------|---|
| <i>a.</i> ♀ ad. st. | South Africa. | Purchased. | - |
| <i>b, c.</i> ♂ ad. sk. | Griqualand (<i>T. C. Atmore</i>). | | |
| <i>d, e.</i> ♂ ♀ ad. sk. | Transvaal (<i>T. Ayres</i>). | | |
| <i>f.</i> ♂ ad. sk. | Tati, Matabele-Land, Sept. 30 (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqrs. [P.] | |
| <i>g, h.</i> ♂ ♀ ad. sk. | Matabele-Land, Sept. (<i>T. E. Buckley</i>). | Shelley Coll. | |
| <i>i.</i> ♂ ; <i>k, l.</i> ♀ ad. sk. | Matabele-Land (<i>Dr. Bradshaw</i>). | Shelley Coll. | |
| <i>m-l.</i> ♂ ♀ & juv. sk. | Damara-Land, June & July (<i>C. J. Andersson</i>). | | |

2. *Granatina ianthinogastra*.

? *Uræginthus granatinus* (*nec Linn.*), *Cab. J. f. O.* 1878, p. 229.

Uræginthus ianthinogaster, *Reichen. Orn. Centralbl.* 1879, p. 114

Fischer & Reichen J. f. O. 1879, | 353, pl. 2 figs 1, 2, *Fischer*,

Subfamily II. PLOCEINÆ.

Key to the Genera.

- a. Tail square and even slightly forked, the middle feathers being the shortest; nostrils completely hidden by feathers 43. SPOROPIPES, p. 407.
- b. Tail graduated, the outer feathers being the shortest.
 - a'. Chin-angle triangular or gently rounded.
 - a''. Bill black or horn-coloured, more or less pointed.
 - a'''. Culmen rounded at base.
 - a⁴. Nostril oval and exposed, not reached by the nasal plumes; distinct hair-like plumes on the nape and hind neck.
 - a⁵. Hind claw * very long, about equal to the hind toe itself; wings not pointed, the distance between the tips of the primaries and tips of secondaries less than the length of the tarsus 44. ICTEROPSIS, p. 410.
 - b⁵. Hind claw curved, and by no means as long as the hind toe.
 - a⁶. Wing pointed, the distance between tips of primaries and tips of secondaries as much as length of tarsus . 45. ANAPLECTES, p. 411.
 - b⁶. Wing rounded, the distance between the tips of primaries and secondaries less than tarsus 46. HETERHYPHANTES, [p. 414.
 - b⁴. Nostril oval and exposed, but reached by the nasal plumes at the base; the nostril shut in by a horny membrane; no hairs on nape or hind neck 47. SYCOBROTUS, p. 421.
 - c⁴. Nostril long, oval, or rounded, with sometimes a slight overhanging horny shelf; the nasal plumes just reaching to base of nasal opening; distinct hairs on nape or hind neck.
 - c⁵. Bill about equal in height and depth at nostrils 48. SITAGRA, p. 424.

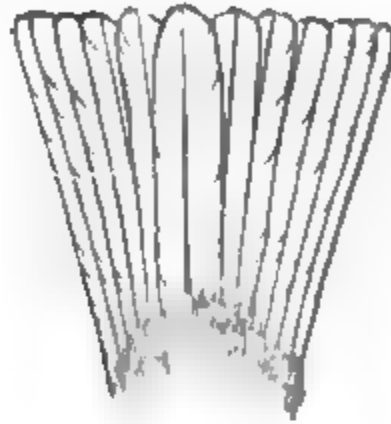
* The claw is measured from its root to the tip, and the hind toe from the root of the claw to the junction with the tarsus.

- d*². Bill higher than it is broad at the nostrils **HYPHANTORNIS.**
- a*. With scarlet back and under surface; hen Sparrow-like 49. **FOUDIA***, p. 432.
- β*. With grey belly and rufous under tail-coverts 50. **NELICURVUS***, p. 436.
- γ*. With yellow as the predominating colour 51. **HYPHANTORNIS***, [p. 437.
- δ*. With chestnut as the prevailing colour 52. **CINNAMOPTERYX***, [p. 471.
- e*. With yellow as the prevailing colour; bill very obtuse 53. **PLOCELLA***, p. 474.
- ζ*. Male entirely black; female olive 54. **MELANOPTERYX***, [p. 476.
- η*. Plumage black and red, or black and orange 55. **MALIMBUS***, p. 477.
- d*⁴. Nostril rounded and exposed, the nasal plumes reaching to the posterior edge; no nuchal hairs.
- e*⁴. Hind claw curved, but not particularly strong, not equal to hind toe 56. **NEBACANTHIS**, p. 483.
- f*⁴. Hind claw strongly curved and very stout, equal to hind toe 57. **PLOCEUS**, p. 487.
- δ*^{'''}. Culmen flattened at base, and sometimes crested.
- e*⁴. Nostrils overhung by nasal plumes at the base, these reaching to the nasal aperture 60. **HISTURGOPS**, p. 505.
- f*⁴. Nostrils not approached by the nasal plumes, but ovate and exposed.
- g*⁴. Bill very distinctly curved, the angle of the culmen more curved than the ascending angle of the genys 61. **DINEMRILLIA**, p. 503.
- h*⁴. Bill more pointed, the curve of the culmen about equal to

43. SPOROPIPES.

Type.

- Sporopipes*, *Cab. Arch. f. Naturg.* viii. p. 332 (1847). *S. squamifrons*.
Pholidocoma, *Reichenb. Singv.* p. 49, pl. xix. figs.
 100-170 (1861)..... *S. frontalis*.

Tail of *Sporopipes squamifrons*.*Range.* Confined to Africa.*Key to the Species.*

- a.* Hind neck ashy brown like the back; wing-coverts black, conspicuously edged with white; lores, chin, and a broad line down the sides of the throat black..... *squamifrons*, p. 407.
b. Hind neck rufous; wing-coverts brown, edged with whitish brown; lores and sides of face ashy brown: a narrow malar streak of black, dotted with white..... *frontalis*, p. 409.

1. *Sporopipes squamifrons*.

- Estrela squamifrons*, *Smith, Rep. Exped. Centr. Afr.* p. 40 (1836);
Gray, Gen. B. ii. p. 308 (1860); *Layard, B. S. Afr.* p. 100 (1867);
Ayres, Ibis, 1871, p. 267. 1880, p. 263.
Fringilla lepidopterus, *Licht. Verz. Vog. Kafferl.* p. 15 (1842).
Amadina squamifrons, *Smith, Ill. Zool S. Afr., Aves*, pl. 96 (1844);
Chapm. Trav. S. Afr. ii. App. p. 402 (1848).
Euplectes lepidopterus, *Hartl. Syst. Verz. Bremen*, 1844, p. 09.
Sporopipes lepidopterus, *Cab. Arch. f. Naturg.* 1847, p. 332; *Bp. Consp.* i. p. 179 (1850); *Cab. Mus. Hein. Th.* i. p. 179 (1850);
Licht. Nomencl. Av. p. 40 (1850); *Reichenb. Singv.* p. 49, pl. xix. figs. 107, 108 (1861); *Mont. P. Z. S.* 1865, p. 96; *Heugl. J. f. O.* 1867, p. 371; *id. Orn. N.O.-Afr.* i. p. 540 (1870), iv. p. cxxix (1871).
Ploceus lepidopterus, *Gray, Gen. B.* ii. p. 353 (1849); *id. Hand-l. B.* ii. p. 46, no. 6632 (1870).
Philæterus squamifrons, *Strickl. & Sel. Contr. Orn.* 1852, p. 150.
Sporopipes squamifrons, *Sharpe, Cat. Afr. B.* p. 61 (1871); *Gurney*

in *Anderes. B. Dam.-Ld.* p. 177 (1872); *Buckley, Ibis*, 1874, p. 380; *Bocage, Orn. Angola*, p. 321 (1877-81); *Sharpe in Oates' Matabele-Land*, App. B, p. 319 (1881); *Shelley, Ibis*, 1882, p. 351; *Sharpe, ed. Layard's B. S. Afr.* pp. 451, 848 (1884); *Shelley, Ibis*, 1887, p. 8.

Adult male. General colour above ashy brown from the hinder crown to the upper tail-coverts; lesser wing-coverts like the back; median and greater coverts as well as the bastard-wing black, broadly edged with white; primary-coverts and quills dusky brown, externally edged with ashy brown, the secondaries broadly edged with white like the greater coverts; tail-feathers black, broadly edged with white; crown of head scaly, the feathers black with ashy-brown edges, those of the forehead with hoary-white margins; lores and feathers round eye black; sides of face and ear-coverts pale ashy brown like the sides of the neck; cheeks white, forming a moustache; throat white; chin and a broad line on each side of throat black; fore neck and breast isabelline, the abdomen a little whiter; sides of body and flanks isabelline; thighs and under tail-coverts white; under wing-coverts and axillaries pale ashy; quills below dusky, ashy isabelline along the inner edge: "bill pink, darker on the culmen and at the tip; feet pale brown; iris red" (*T. Ayres*). Total length 4.3 inches, culmen 0.4, wing 2.35, tail 1.55, tarsus 0.6.

Adult female. Similar to the male in colour. Total length 4 inches, culmen 0.4, wing 2.2, tail 1.45, tarsus 0.6.

Young. Like the adults, but having the white edges to the quills and tail-feathers isabelline; the head like the back, streaked with dusky brown; the white cheeks and the black streaks on the sides of the throat indistinctly indicated.

Hab. South Africa, from the Orange-River district to Benguela on the west, and to Matabele-Land on the east.

| | | |
|--------------|---|---------------------------------------|
| a. Ad. sk. | Latakoo. | Sir A. Smith [C.]. (Type of species.) |
| b. Ad. sk. | Eland's Post, S.E. Africa
(<i>T. C. Atmore</i>). | Sharpe Coll. |
| c. ♂ ad. sk. | Transvaal (<i>W. Lucas</i>). | Shelley Coll. |
| d. ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |

2. *Spermophyes frontalis*.

- Lexia frontalis*. *Bonn. Zool.* i. p. 445. 1840.
Le Spermé à front blanche. *Tail. Soc. Oise.* p. 37. pl. 16. 1845.
Fringilla frontalis. *Tail. N. Soc.* ii. p. 121. 1847. *Moupl. Syst.*
Tail. i. 41. 1840.
Amadina frontalis. *Bonn. Nov. Hist.* p. 112. 1855-60. *id. Syst.*
Tail. i. 7. 1840.
Eschschia frontalis. *Comp. Zool.* i. p. 305. 1849.
Spermophyes frontalis. *Id. Zool.* i. p. 305. 1850. *Col. Mus. Bonn.*
Pl. i. 174. 1850. *Hort. Zool. N. Soc.* i. 112. 1855. *id. J. f. O.*
1842. i. 174. *Comp. Zool.* i. 305. 1849. *id. Zool. Soc. Bonn.* *Col.*
p. 47. 1844. *Comp. Zool. N. Soc.* i. p. 305. 1850. *id. App.*
p. 112. 1855. *Ann. & Mus. Zool. Bonn.* p. 112. 1855.
Hort. Zool. *id. Soc. Bonn.* i. p. 112. 1855. *Proc. Zool.*
Soc. Bonn. i. 112. 1855. *id. Zool.* i. 305. 1850. p. 305.
Snell. *Id.* *id.* i. 1.
Phoenix frontalis. *Comp. Zool.* i. p. 45. 1850. 1870.

Adult male. General colour above light brown, scapulars and wing-coverts like the back, with shiny-brown edges: basal-wing, primary-coverts, and quill dark brown, edged with lighter brown, the inner secondaries margined with shiny brown: tail-feathers dark brown, edged with shiny brown, internal dark, with small white tips to the feathers producing a scalloped appearance: eyebrow, lores, sides of face, and ear-coverts dark shiny brown: hind-crown rufous like the hind neck and sides of neck on the top part of the crown: a streak of black crosses with white spots throat white: fore-neck and breast light shiny brown: abdominal white: sides of body and flanks ochraceous: thighs and under tail-coverts white: under wing-coverts dark and with whitish edges: quill below dusky, ochraceous along the inner edge: bill and feet pale yellowish horn-colour: iris dusky: brown. *Tom. Hume.* Total length 4.4 inches, culmen .6 wing 2.7 tail 1.7 tarsus .7.

Adult female. Similar in colour to the male. Total length 4.7 inches, culmen .6 wing 2.6 tail 1.7 tarsus .7.

Young male. Similar to the adult but darker in colour, the pale edges of the wing and tail more rufous: the black of the fore-neck and cheek-stripe uniform without any white dots: bill black horn-colour: feet greyish horn-dusky. *Emm. Pucher.*

Hab. Senegambia to S. E. Africa and south to Equatorial Africa.

| | | |
|-------------------|--------------------------------|----------------|
| a. ad m. | Abvornia | Dr. Kämpel. C. |
| l. c. ad m. | Abvornia | Snare. Col. |
| c. ad m. | Longe-lan. L. | Snare. Col. |
| c. ad m. | Senar. Dr. Kämpel. | Snare. Col. |
| c. juv m. | Long. Equatorial Africa. Feil. | Snare. Col. |
| | <i>Emm. Pucher.</i> | |
| c. g. c. c. ad m. | Edgar. juv. juv. Emm. Pucher. | Snare. Col. |

44. **ICTEROPSIS.**

Type.

Icteropsis, Pelz. *Verh. z.-b. Ges. Wien*, xxxi. p. 149
(1881)

I. pelzelni.



Head of *Icteropsis pelzelni*, to show nostril

Range. Equatorial Africa, extending to the Victoria Nyanza.

1 ***Icteropsis pelzelni*.**

Icteropsis crocata (nec Hartl.), Pelz. *Verh. z.-b. Ges. Wien*, xxxi. p. 149 (1881).

Sitagra pelzelni, Hartl. *Zool. Jahrb* ii p. 343, Taf. xiv. figs. 9, 10 (1887).

Ploceus pelzelni, Reichen. *J. f. O.* 1887, p. 60; Shelley, *P. Z. S.* 1888, p. 35.

Adult male. General colour above olive-yellow: the hind neck yellow, extending on to the occiput, and forming a broad collar, separating the back from the black of the head: scapulars like the back, but slightly streaked with dusky: lesser wing-coverts like the back; median and greater coverts dusky blackish, with pale yellowish-white margins and tips; bastard-wing, primary-coverts, and quills dusky blackish, edged with olive-yellow; tail-feathers pale olive, with yellow margins: crown of head black to the centre, as well as the lores, eyebrow, feathers round eye, sides of face, ear-coverts, cheeks, and throat; sides of neck, fore neck, and remainder of under surface of body bright yellow, including the under tail-coverts and under wing-coverts; quills below dusky, yellowish along the inner edge: "bill black; feet lead-colour; iris dusky brown" (*Emin Pasha*). Total length 5 inches, culmen 0.65, wing 2.4, tail 1.6, tarsus 0.75.

Adult female. Like the male, but wanting the black on the head, which is yellow on the forehead, eyebrow, sides of face, and entire under surface; the hinder crown and nape olive like the back: "bill and feet as in the male; iris dusky umber" (*Emin Pasha*). Total length 4.5 inches, culmen 0.6, wing 2.2, tail 1.5, tarsus 0.6.

Young male. Like the old female, but having the head olive like the back, leaving a bright yellow eyebrow: "bill horn-colour, the mandible paler; feet lead-colour; iris dusky umber" (*Emin Pasha*).

Excepting that it has a prominent yellow collar on the hind neck, this species is almost an exact reproduction of *Sitagra lutcola*. The

vermilion on the mantle, the feathers being of the latter colour, with dusky-brown edges; scapulars, lower back, rump, and upper tail-coverts ashy brown; wing-coverts, bastard-wing, primary-coverts, and quills dusky brown, margined with yellow, brighter on the primaries, the inner secondaries edged with ashy; tail-feathers ashy brown, with olive-yellow margins; head all round, the hind neck, sides of face, ear-coverts, cheeks, throat, sides of neck, fore neck, and chest scarlet vermilion; breast, abdomen, sides of body, and flanks, as well as the thighs and under tail-coverts, white; under wing-coverts and axillaries ashy, washed with yellow near the edge of the wing; quills below dusky, ashy along the inner edge. Total length 5·3 inches, culmen 0·7, wing 3·35, tail 1·95, tarsus 0·75.

Adult female. Differs from the male in being olive-yellow where the male is red, but the yellow does not come so far over the chest as the scarlet does in the male: "bill orange; feet flesh-colour; iris reddish brown" (*W. Ayres*). Total length 5·2 inches, culmen 0·7, wing 3·1, tail 1·7, tarsus 0·75.

Young male (type of *Sharpia ayresi*). Similar to the old female, but rather brighter olive-yellow, blackish on the base of the forehead, the lores, and round the eye: "bill bright dark gamboge-yellow; tarsi and feet light ash-colour; iris dark brown" (*J. S. Jameson*).

Hab. S.E. Africa.

| | | |
|---------------|---|--|
| a. ♂ ad. sk. | Limpopo River (<i>J. Wahlberg</i>). | Sharpe Coll. |
| b. ♀ ad. sk. | Umzeila's Country, N.E. of Transvaal (<i>W. Ayres</i>). | J. H. Gurney, Esq. [P.]. |
| c. ♂ juv. sk. | Makara River, Dec. 10 (<i>J. S. Jameson</i>). | Shelley Coll. (Type of <i>S. ayresi</i> .) |

2. *Anaplectes gurneyi*.

Sycobius rubriceps (*nec Sundev.*), *Booage, Journ. Lieb.* 1877, p. 275; *id. Orn. Angola*, p. 334 (1877-81).

Plocens gurneyi, *Sharpe, Ibis*, 1887, p. 17, pl. i. fig. 1.

Male, not quite adult (type of species). Similar to *A. rubriceps*.

3. *Anaplectes melanotis*.

- Ploceus melanotis*, *Lafr. Rev. Zool.* 1839, p. 20; *id. Mag. de Zool.* 1839, pl. 7; *Shelley, Ibis*, 1887, p. 18; *id. P. Z. S.* 1888, p. 34.
Ploceus erythrocephalus, *Rüpp. Syst. Ubers.* pp. 71, 76 (1845); *Heugl. Syst. Ubers.* p. 38 (1856).
Hyphantornis melanotis, *Gray, Gen. B.* ii. p. 351 (1849); *id. Hand-l. B.* ii. p. 42, no. 6589 (1870).
Hyphantornis erythrocephalus, *Gray, l. c.* p. 351 (1849).
Sycobius melanotis, *Bp. Consp.* i. p. 438 (1850); *Horsf. & Moore, Cat. B. Mus. E.L. Co.* ii. p. 520 (1856); *Hartl. Orn. W.-Afr.* p. 133 (1857); *id. J. f. O.* 1861, p. 257; *Heugl. J. f. O.* 1862, p. 25; *Antia. Cat. descr. Uoc.* p. 66 (1864); *Heugl. Orn. N.O.-Afr.* i. p. 535 (1870); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 101 (1881); *Pelz. Verh. z.-b. Ges. Wien*, xxxi. p. 150 (1881), xxxii. p. 506 (1882); *Böhm, J. f. O.* 1883, p. 197.
Ploceus leuconotus, *Müll. Naum.* 1852, part iv. p. 28.
Euplectes pyrrhocephalus, *Heugl. Syst. Ubers.* p. 38 (1856).
Ploceus pyrrhocephalus, *Heugl. Syst. Ubers.* p. 39 (1856).
Ploceus hæmatocephalus, *Württ. Naum.* 1857, p. 433; *Heugl. J. f. O.* 1867, p. 29.
Anaplectes melanotis, *Reichenb. Singr.* p. 86, pl. 44, fig. 323 (1861); *Heugl. Orn. N.O.-Afr.* iv. App. p. cxxxviii (1871); *Salvad. Ann. Mus. Cicic. Genoc.* (2) i. p. 194 (1884); *Hartl. Zool. Jahrb.* ii. p. 337 (1887); *Salvad. Ann. Mus. Cicic. Genoc.* (2) vi. p. 296 (1888).
Malimbus melanotis, *Sharpe, Cat. Afr. B.* p. 60 (1871); *Elliot, Ibis*, 1876, p. 465.
Calyphantria melanotis, *Fischer, Zeitschr. ges. Orn.* i. p. 332 (1884); *Reichen. J. f. O.* 1887, p. 68.
Calyphantria erythrogenys, *Fischer & Reichen. J. f. O.* 1884, p. 181; *Fischer, Zeitschr. ges. Orn.* i. p. 332 (1884).

Adult male. Similar to *A. rubriceps*, but with the edges to the wing-coverts, quills, and tail rosy instead of yellow; the head rosy crimson, as well as the throat and chest; the chin, cheeks, lores, and ear-coverts black: "bill red, with the cutting-edges and the angle of the mouth fiery yellow; feet rosy red; iris umber-brown" (*Von Heuglin*). Total length 5·3 inches, culmen 0·7, wing 3·45, tail 1·9, tarsus 0·7.

Hab. Senegambia to North-eastern Africa.

- | | | |
|---------------|--|---------------------------------------|
| a, b. Ad. sk. | Senegambia. | |
| c. Ad. sk. | Shoa (<i>Sir W. C. Harris</i>). | India Museum. |
| | | (Type of <i>P. erythrocephalus</i> .) |
| d. ♂ ad. sk. | Kolla of Ballanu, Oct. 24 (<i>A. Antinori</i>). | Shelley Coll. |
| e. ♂ ad. sk. | Lado, Equatorial Africa, March 13 (<i>Emin Pasha</i>). | Shelley Coll. |
| f. ♂ ad. sk. | Redjaf, Jan. 9. | Emin Pasha [P.]. |

4. *Anaplectes angolensis*.

- Sharpia angolensis*, *Bocage, Jorn. Lisb.* 1878, p. 258; *id. Orn. Angola*, p. 558 (1881).
Ploceus angolensis, *Shelley, Ibis*, 1887, p. 18, pl. i. fig. 2.
Adult. General colour above chocolate-brown, mottled with

white; the feathers of the mantle and back white or yellowish white on the inner webs, brown on the outer ones; scapulars uniform chocolate-brown; lower back chocolate-brown, the feathers sulphur-yellow at the tips; rump entirely sulphur-yellow; upper tail-coverts dusky brown, washed with sulphur-yellow; wing-coverts chocolate-brown, the median and greater coverts white at the ends, forming a double wing-bar, of which the median one is the broader; bastard-wing, primary-coverts, and quills chocolate-brown, with whity-brown edges to the latter; tail-feathers ashy brown, fringed with whity brown, yellowish on the centre feathers; crown of head, sides of face, ear-coverts, and sides of neck dark chocolate-brown; cheeks and under surface of body white, with a wash of sulphur-yellow, a little more distinct on the sides of body; under wing-coverts white; quills below dusky, ashy along the inner edge: "bill blackish; feet brown; iris brick-red" (*J. Anchieta*). Total length 5·4 inches, culmen 0·7, wing 3·25, tail 1·65, tarsus 0·7.

Hab. Benguela.

a. Ad. sk.

Caconda, Benguela (*J. Anchieta*).

Shelley Coll.

46. HETERHYPHANTES.



Head of *Heterhyphantes melanogaster*, to show nostril and nuchal hairs*.

Range. Confined to Africa.

Key to the Species.

a. Ear-coverts orange or yellow.

a'. Wing-coverts and inner secondaries

- c⁴. Back and wings chocolate-brown
 or blackish chocolate..... *nigricollis* ♀, p. 415.
 d⁴. Back and wings black... .. *melanoxanthus* ♀, p. 416.
 b''. Breast and abdomen black; throat
 orange *melanogaster* ♂, p. 417.
 b'. Wing-coverts and inner secondaries
 with large white spots at the end of
 the outer web..... *sancti thomæ*, p. 418.
 b. Ear-coverts black.
 c''. Forehead yellow.
 c'''. Lower back and rump yellow;
 back uniform black, not streaked. . *reichenowi* ♂, p. 418.
 d''. Lower back and rump ashy grey.
 e⁴. Nape and hind neck olive-yellow
 or ashy; back olive-yellow or
 ashy, with dusky blackish streaks *baglafecht* ♂, p. 419.
 f⁴. Nape and hind neck black; back
 black, with yellow margins to
 the feathers *emini* ♂, p. 420.
 d'. Forehead black like the crown.
 e'''. Under surface entirely yellow;
 back black like the head; rump
 olive-yellow *reichenowi* ♀, p. 418.
 f''. Throat and breast yellow; rest
 of under surface isabelline; rump
 ashy grey; back ashy grey,
 streaked with black *emini* ♀, p. 420.

1. *Heterhyphantes nigricollis*.

- Malimbus nigricollis*, Vieill. Ois. Chant. p. 74, pl. 45 (1805).
Ploceus atricapillus, Vieill. N. Dict. d'Hist. Nat. xxxiv. p. 128
 (1819)*; Less. Compl. Buff. viii. p. 307 (1837).
Ploceus nigricollis, Vieill. t. c. p. 129 (1819); Shelley, Ibis, 1887,
 p. 22; id. P. Z. S. 1888, p. 34.
Ploceus jonquillaceus, Vieill. t. c. p. 130.
Ploceus atrogularis, Voigt, Cuv. Thierr. p. 564 (1831).
Sycobius nigricollis, Gray, Gen. B. ii. p. 352 (1849).
Symplectes nigricollis, Bp. Consp. i. p. 439 (1850); Hartl. Orn. W.-
 Afr. p. 153 (1857); Reichen. J. f. O. 1875, p. 40, 1877, p. 26,
 1885, p. 373, 1887, pp. 301, 307.
Hyphantornis grayi, J. & E. Verr. Rev. et Mag. de Zool. 1851,
 p. 514; Sharpe & Bouvier, Bull. Soc. Zool. France, i. p. 47 (1876);
 Bocage, Orn. Angola, p. 329 (1881).
Symplectes chrysophrys, J. & E. Verr. J. f. O. 1855, p. 106.
Euplectes jonquillaceus, Müll. J. f. O. 1856, p. 116; Reichen. J. f. O.
 1875, p. 40.
Symplectes jonquillaceus, Hartl. Orn. W.-Afr. p. 135 (1857); id.
 J. f. O. 1861, p. 257; Oustal. N. Arch. Mus. (2) ii. Bull. p. 108
 (1879).
Hyphantornis flavigula, Cass. Proc. Philad. Acad. 1859, p. 134.
Hyphantornis nigricollis, Reichenb. Singv. p. 87, pl. 44. fig. 325 (1861).
Hyphantornis jonquillaceus, Reichenb. t. c. p. 87 (1861).
Hyphantornis amauronotus, Reichen. J. f. O. 1877, p. 27.

* Hartlaub quotes "*flavicapillus*," and so does Reichenow, but I cannot find this name.

Adult male. General colour above dark chocolate-brown, with a little olive-yellow on the scapulars; rump and upper tail-coverts olive-yellow; lesser wing-coverts uniform like the back; remainder of the coverts, quills, and tail dark brown, edged with olive-yellow; crown of head, sides of face, and sides of neck deep yellow, inclining to orange on the forehead and vertex as well as the ear-coverts; lores and region of the eye, as well as the base of the cheeks and throat, black; remainder of cheeks and fore neck orange-yellow; the breast and abdomen, thighs and under tail-coverts bright yellow; under wing-coverts white, edged with yellow; quills light ashy brown below, pale ashy along the inner web: "bill black; feet dusky red; iris straw-colour" (*Emin Pasha*). Total length 5·7 inches, culmen 0·7, wing 2·9, tail 2, tarsus 0·75.

Adult female. Different from the male as regards the head, which is black with a distinct streak of yellow running from the base of the nostrils above the eye; lores and a broad streak through the eye black; sides of face and under surface of body bright yellow, orange on the ear-coverts and throat. Total length 5·4 inches, culmen 0·75, wing 2·85, tail 1·9, tarsus 0·8.

One immature male is moulting from the black-headed stage, and has the crown spangled with new yellow feathers.

Young (? female). Dull olive above, more or less dusky; a little brighter yellow over the eyebrow; sides of face, ear-coverts, and under surface of body brighter yellow.

Hab. West Africa, from the Cameroons to Gaboon and the Congo, reaching to the Monbuttu country in Equatorial Africa.

| | | |
|-----------------------------------|--|------------------------|
| a. ♂ ad. st. | Gaboon. | M. Verreaux. |
| b, c. ♀ ad. sk. | Gaboon. | M. Verreaux. |
| d. ♂ ad. sk. | Gaboon (<i>A. Marche</i>). | M. A. Bouvier. |
| e, f. ♂ ad.; g. Juv. sk. | Gaboon. | P. B. Du Chaillu [C.]. |
| h-l. ♂ ad. et imm.; m. ♀ imm. sk. | Landana, Congo (<i>L. Petit</i>). | Shelley Coll. |
| n, o. ♂ ♀ ad. sk. | R. Congo (<i>Lucan & Petit</i>). | Shelley Coll. |
| p. ♂ ad. sk. | Bellima, Equatorial Africa, June 23. | Emin Pasha [P.]. |

upper tail-coverts like the back; wing-coverts like the back, the greater coverts and quills more sooty black; tail-feathers black; crown of head orange-yellow, the occiput and nape black like the back; lores and a line through the eye black; sides of face, ear-coverts, and cheeks orange-yellow; throat black, as also the sides of neck; fore neck orange-yellow, becoming golden yellow on the chest and remainder of the under surface; sides of body, flanks, and thighs slightly mottled with black bases; under tail-coverts, under wing-coverts, and axillaries golden yellow; the lower coverts white; quills below blackish, rather more ashy along the inner edge: "bill black; feet fawn- or horny brown; iris red or reddish brown" (*G. A. Fischer*); "feet pinkish flesh-colour; iris crimson" (*F. J. Jackson*). Total length 5.5 inches, culmen 0.75, wing 2.9, tail 2, tarsus 0.8.

Adult female. Black above like the male, and entirely golden yellow below, with no black on the throat, which has only a slight tinge of yellow; crown of head black like the back, with a distinct yellow eyebrow, followed by a black line from the lores running through the eye to the sides of the nape; rest of sides of face yellow, like the underparts. Total length 5.6 inches, culmen 0.7, wing 2.7, tail 1.9, tarsus 0.8.

This species is similar to *H. nigricollis*, but is blacker and wants the olive-yellow shade on the wings, lower back, and tail, the latter being entirely black. The black colour of the back extends upwards in a square patch on the nape.

The female is similar to the female of *H. nigricollis*, but differs, like the male, in being blacker and having no olive-yellow on the wings, back, or tail.

Hab. East Africa.

| | | |
|--|---------------------------------|------------------------------|
| <i>a-d.</i> ♂ ♀ ad. sk. | Lamu (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>e.</i> ♀ ad. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>f, g.</i> ♂; <i>h.</i> ♀
ad. sk. | Manda Island, Nov. | F. J. Jackson, Esq.
[P.]. |

3. *Heterhyphantes melanogaster*.

Ploceus melanogaster, *Shelley*, *P. Z. S.* 1887, p. 126, pl. xiv. fig. 2.

Adult male (type of species). General colour above black, with a slight gloss; wings and tail black; entire head, sides of face, and throat yellow, inclining to orange on the latter and on the cheeks; lores and streak through the eye black; occiput also mixed with black; entire under surface of body black from the fore neck downwards, with a few yellow feathers on the thighs; under wing-coverts black; quills blackish below. Total length 5 inches, culmen 0.75, wing 2.6, tail 1.8, tarsus 0.75.

Hab. Cameroons, W. Africa.

| | | |
|---------------------|--|---|
| <i>a.</i> ♂ ad. sk. | Cameroons Mountains, 8000 feet,
Sept. | H. H. Johnston,
Esq. [P.].
(Type of species.) |
|---------------------|--|---|

Adult male. General colour above dark chocolate-brown, with a little olive-yellow on the scapulars; rump and upper tail-coverts olive-yellow; lesser wing-coverts uniform like the back; remainder of the coverts, quills, and tail dark brown, edged with olive-yellow; crown of head, sides of face, and sides of neck deep yellow, inclining to orange on the forehead and vertex as well as the ear-coverts; lores and region of the eye, as well as the base of the cheeks and throat, black; remainder of cheeks and fore neck orange-yellow; the breast and abdomen, thighs and under tail-coverts bright yellow; under wing-coverts white, edged with yellow; quills light ashy brown below, pale ashy along the inner web; "bill black; feet dusky red; iris straw-colour" (*Emin Pasha*). Total length 5·7 inches, culmen 0·7, wing 2·9, tail 2, tarsus 0·75.

Adult female. Different from the male as regards the head, which is black with a distinct streak of yellow running from the base of the nostrils above the eye; lores and a broad streak through the eye black; sides of face and under surface of body bright yellow, orange on the ear-coverts and throat. Total length 5·4 inches, culmen 0·75, wing 2·85, tail 1·9, tarsus 0·8.

One immature male is moulting from the black-headed stage, and has the crown spangled with new yellow feathers.

Young (? female). Dull olive above, more or less dusky; a little brighter yellow over the eyebrow; sides of face, ear-coverts, and under surface of body brighter yellow.

Hab. West Africa, from the Cameroons to Gaboon and the Congo, reaching to the Monbuttu country in Equatorial Africa.

| | | |
|-----------------------------------|--|------------------------|
| a. ♂ ad. st. | Gaboon. | M. Verreaux. |
| b, c. ♀ ad. sk. | Gaboon. | M. Verreaux. |
| d. ♂ ad. sk. | Gaboon (<i>A. Marche</i>). | M. A. Bouvier. |
| e, f. ♂ ad.; g. Juv. sk. | Gaboon. | P. B. Du Chaillu [C.]. |
| h-i. ♂ ad. et imm.; m. ♀ imm. sk. | Landana, Congo (<i>L. Petit</i>). | Shelley Coll. |
| n, o. ♂ ♀ ad. sk. | R. Congo (<i>Lucan & Petit</i>). | Shelley Coll. |
| p. ♂ ad. sk. | Bellima, Equatorial Africa, June 23. | Emin Pasha [P.]. |

upper tail-coverts like the back; wing-coverts like the back, the greater coverts and quills more sooty black; tail-feathers black; crown of head orange-yellow, the occiput and nape black like the back; lores and a line through the eye black; sides of face, ear-coverts, and cheeks orange-yellow; throat black, as also the sides of neck; fore neck orange-yellow, becoming golden yellow on the chest and remainder of the under surface; sides of body, flanks, and thighs slightly mottled with black bases; under tail-coverts, under wing-coverts, and axillaries golden yellow; the lower coverts white; quills below blackish, rather more ashy along the inner edge: "bill black; feet fawn- or horny brown; iris red or reddish brown" (*G. A. Fischer*); "feet pinkish flesh-colour; iris crimson" (*F. J. Jackson*). Total length 5·5 inches, culmen 0·75, wing 2·9, tail 2, tarsus 0·8.

Adult female. Black above like the male, and entirely golden yellow below, with no black on the throat, which has only a slight tinge of yellow; crown of head black like the back, with a distinct yellow eyebrow, followed by a black line from the lores running through the eye to the sides of the nape; rest of sides of face yellow, like the underparts. Total length 5·6 inches, culmen 0·7, wing 2·7, tail 1·9, tarsus 0·8.

This species is similar to *H. nigricollis*, but is blacker and wants the olive-yellow shade on the wings, lower back, and tail, the latter being entirely black. The black colour of the back extends upwards in a square patch on the nape.

The female is similar to the female of *H. nigricollis*, but differs, like the male, in being blacker and having no olive-yellow on the wings, back, or tail.

Hab. East Africa.

| | | |
|--|---------------------------------|------------------------------|
| <i>a-d.</i> ♂ ♀ ad. sk. | Lamu (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>e.</i> ♀ ad. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>f, g.</i> ♂; <i>h.</i> ♀
ad. sk. | Manda Island, Nov. | F. J. Jackson, Esq.
[P.]. |

3. *Heterhyphantes melanogaster*.

Ploceus melanogaster, *Shelley*, *P. Z. S.* 1887, p. 126, pl. xiv. fig. 2.

Adult male (type of species). General colour above black, with a slight gloss; wings and tail black; entire head, sides of face, and throat yellow, inclining to orange on the latter and on the cheeks; lores and streak through the eye black; occiput also mixed with black; entire under surface of body black from the fore neck downwards, with a few yellow feathers on the thighs; under wing-coverts black; quills blackish below. Total length 5 inches, culmen 0·75, wing 2·6, tail 1·8, tarsus 0·75.

Hab. Cameroons, W. Africa.

| | | |
|---------------------|--|---|
| <i>a.</i> ♂ ad. sk. | Cameroons Mountains, 8000 feet,
Sept. | H. H. Johnston,
Esq. [P.].
(Type of species.) |
|---------------------|--|---|

4. *Heterhyphantes sancti thomæ*.

Sycobius sancti thomæ, *Hartl. Rev. Zool.* 1848, p. 100; *id. Abhandl. nat. Ver. Hamb.* pl. 9 (1848).

Anaplectes sancti thomæ, *Reichenb. Singv.* p. 87, Taf. xliv. fig. 324 (1861).

Ploceus nigricollis, pt., *Shelley, Ibis*, 1887, p. 22.

Adult male. General colour above chocolate-brown washed with olive-yellow, the rump ochreous; upper tail-coverts brown, washed with ochreous; wing-coverts and quills dusky brown, edged with olive-yellow, the median and greater coverts as well as the inner secondaries with a large white spot at the end of the outer web; tail-feathers brown, with olive-yellow margins; crown of head, nape, and hind neck black; a broad eyebrow from the base of the forehead to the side of the nape, entire sides of face and sides of neck, throat, and breast orange-yellow; abdomen isabellino; sides of body, flanks, thighs, and under tail-coverts isabelline brown, the former with a slight wash of olive; under wing-coverts and axillaries pale ashy, edged with yellow; quills dusky below, ashy along the inner web. Total length 5·6 inches, culmen 0·75, wing 3·1, tail 1·9, tarsus 0·95.

Hab. Island of S. Thomas, West Africa.

a. ♂ ad. sk. S. Thomas, Sept. 18 (*F. Newton*). Lisbon Museum.

5. *Heterhyphantes reichenowi*.

Sycobrotus reichenowi, *Fischer, J. f. O.* 1884, p. 180; *Shelley, P. Z. S.* 1885, p. 220.

Hyphanturgus reichenowi, *Fischer, Zeitschr. ges. Orn.* i. p. 331 (1884); *id. J. f. O.* 1885, p. 132.

Symplectes reichenowi, *Reichen. J. f. O.* 1885, p. 373.

Ploceus reichenowi, *Shelley, Ibis*, 1887, p. 21.

Adult male. Similar to *H. baglafecht* and, like that species, entirely golden yellow below; the crown also golden yellow, but the back and scapulars black instead of olive-yellow: "bill black; feet clear reddish brown; iris clear yellow" (*G. A. P. Zool.*). Total

6. *Heterhyphantes baglafecht* *.

Ploceus baglafecht, Vieill. *N. Dict. d'Hist. Nat.* xxxiv. p. 127 (1819); Gray, *Gen. B.* ii. p. 352 (1849); Shelley, *Ibis*, 1887, p. 20.

Ploceus melanotis (nec Lafr.), Guérin, *Rev. Zool.* 1843, p. 321; *Des Murs in Lefebvre's Voy. Abyss.* p. 110 (1845); Müll. *Descr. Nouv. Ois. d'Afr.* part iv. pl. 2 (1854); Heugl. *J. f. O.* 1861, p. 195.

Ploceus auricularis, *Des Murs in Lefebvre's Voy. Abyss., Atlas*, pl. iii. fig. 1 (1845).

Hyphantornis guerini, Lafr. in Ferr. & Gal. *Voy. Abyss.* iii. p. 229 (1845); Gray, *Gen. B.* ii. p. 351 (1849); Müll. *Naum.* 1852, part iv. p. 28; Heugl. *J. f. O.* 1867, p. 388; *id. Orn. N.O.-Afr.* i. p. 562, pl. xviii. fig. e (1870); *id. op. cit.* iv. p. cxxxi (1871); *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 192 (1884).

Textor melanotis, Bp. *Consp.* i. p. 442 (1850); Heugl. *J. f. O.* 1862, p. 26.

Ploceus aurantius, Heugl. *Syst. Uebers.* p. 38 (1856).

Ploceus leucophthalmus, Heugl. *Syst. Uebers.* p. 38 (1856).

Hyphantornis baglafecht, Speke, *Ibis*, 1860, p. 246.

Ploceolus melanotis (nec Lafr.), Reichenb. *Singv.* p. 78, pl. 37. fig. 286 (1861).

Hyphantornis melanotis, Blunf. *Geol. & Zool. Abyss.* p. 403 (1870); Finsch, *Trans. Z. S.* vii. p. 325 (1870); Antin. & *Salvad. Viagg. Bogos*, p. 122 (1873).

Symplectes baglafecht, Reichen. *J. f. O.* 1885, p. 373; *Salvad. Ann. Mus. Civic. Genov.* (2) vi. p. 292 (1888).

Symplectes eremobius, Hartl. *Zool. Jahrb.* ii. p. 320 (1887) †.

Adult male. General colour above olive-yellow, with scarcely distinguishable black shaft-lines; scapulars like the back, but with more distinct black centres; lower back and rump ashy brown; upper tail-coverts olive-yellow; wing-coverts blackish brown, the lesser series edged with olive-yellow; the median and greater series edged with whity brown, tinged with yellow; bastard wing, primary-coverts, and quills blackish brown, margined with olive-yellow, whiter towards the ends of the secondaries; tail-feathers olive-brown, with yellow margins; hinder crown and occiput like the back; forehead and vertex rich golden yellow; lores, a narrow

* HETERHYPHANTES TEMPORALIS.

Hyphantornis temporalis, Bocage, *Jorn. Lisb.* 1880, p. 244; *id. Orn. Angola*, p. 557 (1881).

"Similar to *H. guerini*, but with the head and abdomen more yellow. Total length 6.5 inches, wing 3.4, tail 2.1, bill 0.65, tarsus 0.9." (Bocage.)

Hab. Caconda, Benguela.

Captain Shelley has united this species to *H. baglafecht*, but I think it probable that it will prove to be distinct, as the range of *H. baglafecht* is so restricted to N.E. Africa that I cannot believe the Benguela bird can possibly be the same.

† This is described from Emin Pasha's MSS. by Dr. Hartlaub, and is compared with *H. emini*, but I perceive no characters whereby it can be distinguished from *H. baglafecht*. The original specimen is lost.

eyebrow, feathers round the eye, sides of face, and ear-coverts black; cheeks and under surface of body golden yellow, with a slight tinge of olive-green on the sides of the breast, sides of body, and flanks; under tail-coverts rather paler yellow; under wing-coverts ashy whitish, yellow along the edge of the wing; quills below dusky, ashy yellow along the inner edge: "bill black; feet reddish; iris pale yellow" (*Von Heuglin*). Total length 6 inches, culmen 0.65, wing 3.05, tail 1.6, tarsus 0.85.

Winter plumage. Upper surface grey, often washed with fawn-colour, the middle of the feathers darker or smoky blackish; lores and ear-coverts smoky grey; under surface clear yellowish white, the fore neck, breast, and flanks washed with reddish grey; lower back and upper tail-coverts olive-greenish; wing-coverts and innermost secondaries edged with clear dusky yellow: "bill clear horn-colour, with horny brown culmen; iris greyish white" (*Von Heuglin*).

Adult female. More ashy brown than the male, and rather broadly streaked with blackish on the upper surface: rump creamy white; wings and tail as in the adults, but less strongly tinged with yellow; head ashy brown like the back, with only a faint tinge of yellow on the forehead; lores blackish; sides of face and ear-coverts pale ashy brown, lighter on the cheeks, throat, and chest; remainder of under surface of body white. Total length 5.8 inches, culmen 0.65, wing 3, tail 2, tarsus 0.85.

Hab. N.E. Africa from Bogos-Land to Shoa, extending apparently into Equatorial Africa.

| | | |
|---|--|------------------------------|
| <i>a, b.</i> ♂ ♀ ad. et
juv.; c. ♀ ad. sk. | Senafé, Tigré, March, May. | W. T. Blanford, Esq.
[C.] |
| <i>d.</i> ♂ ad. sk. | Lake Ashangi, May. | W. T. Blanford, Esq.
[C.] |
| <i>e.</i> ♂ ad. sk. | Ankober, Shoa, July (<i>Sir W. C. Harris</i>). | India Museum. |
| <i>f, g.</i> ♂ ad. sk. | Shoa, Jan., May (<i>A. Antinori</i>). | Shelley Coll. |

7. *Heterhyphantes emini*.

Syn. brachyotus emini. *Harter* (see *Proc. Zool. Acclimat. Soc. London*, 1894, p. 100).



yellow; forehead and vertex golden yellow; lores, eyebrow, ear-coverts, and sides of face entirely black; cheeks, throat, and breast golden yellow, the rest of the under surface pale ashy isabellino; under wing-coverts ashy brown, the edge of the wing yellow; quills dusky below, pale yellow along the inner web: "bill black; feet brownish; iris pearly grey or straw-yellow" (*Emin*). Total length 6.3 inches, culmen 0.8, wing 3.2, tail 2.1, tarsus 0.9.

In the full plumage it is probable that the ashy edges to the feathers of the hind neck are shed, and that these parts become entirely black.

Adult female. Differs from the male in wanting the yellow on the forehead, which is black like the rest of the crown and sides of face; the back ashy grey, broadly streaked with black; under surface as in the male, but the yellow on the throat and breast much paler. Total length 6 inches, culmen 0.7, wing 2.95, tail 1.95, tarsus 0.9.

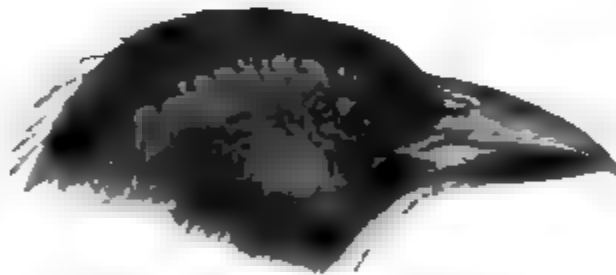
Hab. Equatorial Africa.

a, b. ♂; c. ♀ ad. sk. Agaru, Equatorial Africa, April, Shelley Coll.
May (*Emin Pasha*).

47. SYCOBROTUS.

Type.

| | |
|--|-------------|
| Symplectes, <i>Sravins. B. W. Afr. i. p. 170</i> (1837, <i>nec</i> | |
| <i>Meigen, 1830</i>) | S. bicolor. |
| Eupodes, <i>Jard. & Selby, Ill. Orn. new ser. pl. x.</i> (1837, <i>nec</i> | |
| <i>Latreille</i>) | S. bicolor. |
| Sycobrotus, <i>Cab. Mus. Hein. Th i p. 182</i> (1850) | S. bicolor. |



Head of *Sycobrotus bicolor*, to show nostril

Range. Confined to Africa.

Key to the Species.

- a. Forehead uniform like the rest of the head, the feathers not tipped with hoary grey.
 - a'. Back chocolate-brown; throat edged with hoary grey or yellow margins to the feathers *bicolor*, p. 422.
 - b'. Back greyish brown washed with olive *amaurocephalus*, p. 423.
 - c'. Back intense black like the throat *keratini*, p. 423.
- b. Forehead and throat edged with hoary grey margins to the feathers *stictifrons*, p. 424

1. *Sycobrotus bicolor*.

- Pyranga icteromelas*, Vieill. *N. Dict. d'Hist. Nat.* xxviii. p. 291 (1818); *Pucher. Arch. Mus.* vii. p. 355 (1854).
Ploceus bicolor, Vieill. *N. Dict.* xxxiv. p. 127 (1819); *Shelley, Ibis*, 1887, p. 19.
Fringilla gregalis, Licht. *Verz. Doubl.* p. 23 (1823).
Ploceus chrysogaster, Vigors, *P. Z. S.* 1831, p. 92.
Symplectes chrysomus, Swains. *B. W. Afr.* i. p. 170 (1837).
Eupodes xanthosomus, Jard. & Selby, *Ill. Orn. n. s.* pl. 10 (1837).
Hyphantornis chrysogastra, Gray, *Gen. B.* ii. p. 351 (1849).
Sycobius gregalis, Gray, *t. c.* p. 352 (1849); *Licht. Nomencl. Av.* p. 50 (1854).
Sycobius bicolor, Gray, *t. c.* p. 352 (1849); *Gurney, Ibis*, 1864, p. 352; *Layard, B. S. Afr.* p. 183 (1867); *Gurney, Ibis*, 1868, p. 51; *Layard, Ibis*, 1869, p. 74; *Sharpe, ed. Layard's B. S. Afr.* p. 432 (1881).
Symplectes bicolor, *Bp. Consp.* i. p. 439 (1850); *Hartl. Orn. W.-Afr.* p. 135 (1857); *Reichenb. Singv.* p. 79, Taf. xxxviii. figs. 288, 289 (1861).
Sycobrotus bicolor, *Cab. Mus. Hein. Th.* i. p. 182 (1850).
Hyphantornis bicolor, *Finsch, J. f. O.* 1867, p. 247; *Gray, Hand-l. B.* ii. p. 42, no. 6587 (1870); *Shelley, Ibis*, 1875, p. 78.
Symplectes chrysogaster, *Reichen. J. f. O.* 1885, p. 373.

Adult male. Blackish chocolate, more decidedly brown on the lower back; rump and upper tail-coverts washed with yellow; wings black, with an ashy shade on the outer edge of the greater coverts, and especially on the primaries, which are edged with hoary whitish; the secondaries narrowly fringed with yellow; tail-feathers black, edged with ashy; head a little blacker than the back, the sides of the face and sides of neck also black; throat black, the feathers of the chin obscured by hoary margins, the throat by yellow edges; remainder of under surface of body from the fore neck downwards bright yellow, slightly inclining to orange on the chest; under wing-coverts white, the edge of the wing black; quills blackish, edged with ashy along the inner web: "bill very pale hoary grey, shaded with black on the culmen towards the tip; feet lilac-pink; iris dark brown" (*G. E. Shelley*). Total length 5·7 inches, culmen 0·8, wing 3·45, tail 2, tarsus 0·95.

| | | |
|----------------------------|---|---------------|
| d. Ad. sk. | Grahamstown (<i>T. C. Atmore</i>). | Sharpe Coll. |
| e. ♂ ad. sk. | Eland's Post (<i>T. C. Atmore</i>). | Sharpe Coll. |
| f. ♂ ad. sk. | Eland's Post, May (<i>T. C. Atmore</i>). | Shelley Coll. |
| g. Juv. sk. | Natal (<i>T. C. Ayres</i>). | Sharpe Coll. |
| h. ♀ ad. sk. | Durban (<i>Gordge</i>). | Shelley Coll. |
| i. Ad. sk. | Durban, April 4 (<i>G. E. S.</i>). | Shelley Coll. |
| k. ♂ ad. sk. | Durban, Nov. 10 (<i>T. L. Ayres</i>). | Shelley Coll. |
| l, m. ♂; n-q.
♀ ad. sk. | Pinetown, Natal, March to June
(<i>T. L. Ayres</i>). | Shelley Coll. |

2. *Sycobrotus amaurocephalus*.

Sycobrotus amaurocephalus, *Cab. J. f. O.* 1880, p. 349, pl. 31. fig. 1.

Symplectes amaurocephalus, *Bocage, Orn. Angola*, p. 558 (1881);
Schalow, J. f. O. 1887, p. 241.

Symplectes bicolor (*nec V.*), *Reichen. J. f. O.* 1885, p. 373 *, 1887,
p. 309.

Ploceus amaurocephalus, *Shelley, Ibis*, 1887, p. 20.

Adult. Differs from *S. bicolor* in the colouring of the upper surface, the head being blackish brown, and the whole of the upper surface clear greyish-brown olive (*Cabanis*).

Hab. Interior of Angola to the Upper Congo region.

3. *Sycobrotus kersteni*.

Sycobrotus kersteni, *Finsch & Hartl. Vög. Ostaf. p.* 404 (1870);
Sharpe, P. Z. S. 1873, p. 715; *Fischer & Reichen. J. f. O.* 1879,
p. 350, 1880, p. 143; *Shelley, P. Z. S.* 1881, p. 584; *Schalow,*
J. f. O. 1883, p. 362; *Fischer, Zeitschr. ges. Orn. i. p.* 333 (1884);
id. J. f. O. 1885, p. 132.

Symplectes kersteni, *Finsch & Hartl. Vög. Ostaf. Taf. vi.* (1870).

Ploceus kersteni, *Shelley, Ibis*, 1887, p. 18.

Adult. Similar to *S. bicolor*, but more jet-black above and having the throat also entirely black: "bill bluish grey, with light yellow edges and tip; feet greyish flesh-colour; iris dark brown" (*G. A. Fischer*). Total length 6·7 inches, culmen 0·75, wing 3·5, tail 2·1, tarsus 0·9.

As with *S. bicolor*, the throat is sometimes washed with yellow, which doubtless indicates seasonal plumage.

Hab. East Africa.

| | | |
|------------|--|---------------|
| a. Ad. sk. | Mombasa (<i>T. Wakefield</i>). | Sharpe Coll. |
| b. Ad. sk. | Mombasa (<i>T. Wakefield</i>). | Shelley Coll. |
| c. Ad. sk. | Lamo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| d. Ad. sk. | Usambara Mountains (<i>Sir J. Kirk</i>). | Shelley Coll. |
| e. Ad. sk. | Lamu (<i>Sir J. Kirk</i>). | Shelley Coll. |

* Dr. Reichenow suggests that the West-African bird is the true *Ploceus bicolor* of Vieillot, the range of which he gives as from Senegambia to Angola. My belief, however, is that Vieillot described the South-African bird, and that the records of its occurrence in Senegambia and Sierra Leone are erroneous.

4. *Sycobrotus stictifrons*.

Sycobrotus bicolor (nec V.), *Finsch & Hartl. Vög. Ostaf. p. 403* (1870); *Fischer, J. f. O. 1885, p. 132.*

Symplectes stictifrons, Fischer & Reichen. J. f. O. 1885, p. 373.

Ploceus stictifrons, Shelley, Ibis, 1887, p. 10.

Adult. Similar to *P. bicolor*, and brown like that species, but distinguished by greyish tips to the brown feathers of the crown and throat. Total length 5·7 inches, culmen 0·75, wing 3·5, tail 2, tarsus 0·9.

Two of the Shiré specimens have the throat yellow, and are probably young birds or old birds in seasonal plumage.

Hab. East Africa from the Rovuma River to the Shiré.

- | | | |
|---------------|--|-------------------------|
| a. Ad. sk. | Rovuma River (<i>J. Thomson</i>). | Shelley Coll. |
| b. Ad.; c, d. | Shiré Cataract (<i>Sir J. Kirk</i>). | Livingstone Expedition. |
| Juv. sk. | | |

48. SITAGRA.

Sitagra, Reichenb. Syst. Nat. Taf. lxxix. fig. 15 (1850) . . . ? *S. luteola*.
Sitagra, Cab. Mus. Hein. Th. i. p. 181 (1851) *S. luteola*.

Range. Confined to Africa.

Key to the Species.

- | | |
|---|--------------------------------|
| a. Throat black. | |
| a'. Forehead and sides of face black. | |
| a''. Forehead only black; remainder of crown yellow. | |
| a'''. Wing-coverts and secondaries edged with yellow | <i>luteola</i> ♂, p. 425. |
| b'''. Wing-coverts and secondaries inconspicuously fringed with olive-yellow. | <i>monacha</i> ♂, p. 426. |
| b''. Forehead and vertex black; the hinder crown orange-yellow | <i>subpersonata</i> ♂, p. 427. |
| b'. Forehead orange like the crown; sides of face orange, with a black line through | |

- Wings uniform and like the back.
h''. Forehead orange; sides of face and throat bay and chestnut *ocularia* ♀, p. 427.
i''. Forehead orange; sides of face and throat orange, with a very little shade of chestnut *subpersonata* ♀, p. 427.
k''. Forehead and crown olive-yellow like the back; a broad eyebrow of yellow. *brachyptera* ♀, p. 429.

1. *Sitagra luteola*.

- Fringilla luteola*, *Licht. Verz. Doubl.* p. 23 (1823).
Ploceus personatus, *Vieill. Gal. Ois.* i. pl. 84 (1825).
Ploceus melanotis, *Swains. B. W. Afr.* i. p. 307 (1837).
Ploceus luteolus, *Gray, Gen. B.* ii. p. 352 (1849); *Reichen. Zool. Jahrb.* i. p. 153 (1886); *Shelley, Ibis*, 1887, p. 31; *id. P. Z. S.* 1888, p. 85.
Hyphantornis personatus, *Bp. Consp.* i. p. 440 (1850); *Antin. Cat. descr.* *Ucc.* p. 66 (1864); *Heugl. J. f. O.* 1867, p. 390; *id. Orn. N.O.-Afr.* iv. p. cxxxii (1871).
Sitagra luteola, *Cab. Mus. Hein. Th.* i. p. 131 (1850); *Pelz. Verh. z.-b. Ges. Wien*, xxx. p. 612 (1881).
Fringilla (Acanthus) chrysomelas, *Heugl. Syst. Uebers.* p. 41 (1856).
Ploceus minutus, *Von Müll. Naum.* 1851, Heft 4, p. 28.
Fringilla muelleri, *Bald. Naum.* 1851, Heft 4, p. 28.
Hyphantornis luteolus, *Hartl. Orn. Westafr.* p. 123 (1857); *Finsch, J. f. O.* 1868, p. 170; *Heugl. Orn. N.O.-Afr.* i. p. 565 (1870); *Gray, Hand-l. B.* ii. p. 42, no. 6577 (1870); *Blanf. Geol. & Zool. Abyss.* p. 404 (1870); *Finsch, Tr. Z. S.* vii. p. 262 (1879); *Antin. & Salvad. Viagg. Bogos*, p. 122 (1873); *Sharpe, P. Z. S.* 1874, p. 306; *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 100 (1881), viii. p. 200 (1882); *Salvad. Ann. Mus. Civ. Genov.* (2) i. p. 191 (1884), vi. p. 290 (1888).
Ploceolus luteolus, *Reichenb. Singv.* p. 77, pl. 35. fig. 273 (1861).
Hyphantornis chrysomelas, *Heugl. J. f. O.* 1862, p. 25.

Adult male. General colour above olive-yellow, with faint indications of dusky centres to the feathers; the rump and upper tail-coverts rather brighter yellow; scapulars like the back, but more distinctly streaked with blackish centres; lesser wing-coverts blackish, edged with olive-yellow; median and greater coverts blackish, edged with yellow or white; bastard-wing, primary-coverts, and quills blackish, edged with olive-yellow, lighter and broader on the inner secondaries; tail-feathers light olive-brown, edged externally with olive-yellow and internally with pale yellow; crown of head yellow, inclining to olive-yellow on the occiput, nape, and hind neck; a broad band of black across the forehead; lores, feathers round eye, sides of face, ear-coverts, cheeks, and throat black, descending on to the fore neck; sides of neck, sides of fore neck, and remainder of under surface of body bright yellow, including the under wing-coverts; quills below dusky, yellow along the inner edge: "bill black; feet lead-colour; iris crimson" (*Von Heuglin*). Total length 4·7 inches, culmen 0·55, wing 2·4, tail 1·7, tarsus 0·65.

Adult female. Differs from the male in wanting the black of the head and throat, the back being ashy, washed with olive-yellow and streaked with dusky brown; rump and upper tail-coverts

brighter olive-yellow; head ashy, washed with yellow, with a brighter yellow eyebrow; under surface of body pale yellow, whiter on the abdomen; bill black. Total length 3·9 inches, culmen 0·55, wing 2·3, tail 1·45, tarsus 0·6.

Hab. Senegambia to North-eastern Africa, and Equatorial Africa.

| | | |
|----------------------------|---|-------------------------------|
| a. ♂ imm. sk. | West Africa. | Sir A. Smith. |
| b, c. ♂ ad. sk. | River Gambia. | Dr. Rendall [C.]. |
| d. ♂ imm. sk. | Senaar (<i>Dr. Kotschy</i>). | Sharpe Coll. |
| e. ♂ ad. sk. | Kordofan (<i>Petherick</i>). | Eyton Coll. |
| f. ♂ ad. sk. | Waliko, Anseba Valley, July. | W. T. Blanford, Esq.
[C.]. |
| g, h. ♂ ♀ ad. sk. | Bogos-Land, July, Aug. (<i>W. Jesse</i>). | |
| i, k. ♂ ♀ ad. sk. | Lado, March, July (<i>Emin Pasha</i>). | Shelley Coll. |
| l, m, n. ♂ ad. sk. | Kiri, May. | Emin Pasha [P.]. |
| o, p. ♂ ♀ ad.; q. Imm. sk. | Redjaf, June, July (<i>Emin Pasha</i>). | Shelley Coll. |
| r, s. ♂ ad. et imm. sk. | Redjaf, May 8. | Emin Pasha [P.]. |

2. *Sitagra monacha*.*

Ploceus personatus (*nec V.*), *Jard. Contr. Orn.* 1849, p. 35, pl. 7 (fig. mala); *Reichen. J. f. O.* 1887, pp. 300, 307; *Shelley, Ibis*, 1887, p. 31.

Hyphantornis personata (*nec V.*), *Gray, Gen. B.* ii. p. 351 (1849); *Bp. Conspect.* i. p. 440 (1850); *Harth. Orn. W.-Afr.* p. 123 (1857); *id. J. f. O.* 1861, p. 175; *Gray, Hand-l. B.* ii. p. 42, no. 6578 (1870); *Sharpe, Ibis*, 1870, p. 348; *Shelley & Buckley, Ibis*, 1872, p. 289; *Ussher, Ibis*, 1874, p. 68; *Forbes, Ibis*, 1883, pp. 504, 514, 552; *Shelley, t. c.* p. 550.

Hyphanturgus personatus (*nec V.*), *Cass. Proc. Philad. Acad.* 1850, p. 134.

Ploceolus personatus (*nec V.*), *Reichenb. Singv.* p. 77, pl. 35. figs. 274, 275 (1861).

Hyphantornis luteola (*nec Licht.*), *Sharpe, Ibis*, 1870, p. 56.

Adult male. Similar to *S. luteola*, but with more black on the crown, the hinder crown and hinder neck brighter and more orange-yellow, the back perfectly uniform, and the wing-coverts and inner

| | | |
|---|---|---------------|
| <i>a, b, c.</i> ♂ ♀ ad. et juv. sk. | Ashantee. | Gould Coll. |
| <i>d, e.</i> ♂ ♀ ad. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>f, g, h.</i> ♂ ; <i>i-m.</i> ♀ ad. sk. | Fantee, Feb. & March (<i>G. E. S. & T. E. Buckley</i>). | Shelley Coll. |
| <i>n.</i> ♂ ad. sk. | Cape Coast (<i>L. Fraser</i>). | Forbes Coll. |
| <i>o.</i> ♀ ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>p.</i> ♀ ad. sk. | River Niger. | Mrs. Heywood. |
| <i>q.</i> ♀ ad. sk. | Egga, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| <i>r.</i> ♂ ad. sk. | Gaboon (<i>Verreaux</i>). | Sharpe Coll. |
| <i>s, t.</i> ♂ ; <i>u.</i> ♀ ad. sk. | Landana, R. Congo, Feb. (<i>L. Petit</i>). | Shelley Coll. |

3. *Sitagra subpersonata*.

Hyphantornis subpersonatus, *Cab. J. f. O.* 1876, p. 92; *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 47 (1876).

Hyphantornis ocularius (*nec Smith*), *Reichenb. J. f. O.* 1877, p. 27; *P. Bocage, Orn. Angola*, p. 328 (1881).

Hyphantornis brachypterus (*nec Sw.*), *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 309 (1876).

Ploceus subpersonatus, *Reichenb. Zool. Jahrb.* i. p. 152, pl. 5. fig. 4 (1886); *Shelley, Ibis*, 1887, p. 32.

Adult male. Similar to *S. luteola*, but very much larger and with a longer bill, the general colour above being dull olive-green, olive-yellow on the rump and upper tail-coverts; forehead and vertex black; the hinder crown, occiput, and nape deep orange like the hind neck, sides of neck, and under surface of body; the throat black, extending on to the fore neck; bill black. Total length 5·6 inches, culmen 0·75, wing 2·6, tail 1·9, tarsus 0·8.

Adult female. Different from the male, and scarcely to be distinguished from the hen of *S. ocularia*. Olive-yellow above, brighter yellow below, with a wash of orange on the throat and fore neck, cheeks and ear-coverts; a black streak through the eye; forehead and eyebrow orange-yellow; rest of the crown yellow, becoming olive-yellow like the back on the occiput and nape. Total length 5·5 inches, culmen 0·7, wing 2·65, tail 2, tarsus 0·8.

Hab. Lower Congo.

| | | |
|--------------------------------------|--|------------------------|
| <i>a.</i> ♂ ; <i>b, c.</i> ♀ ad. sk. | Landana, R. Congo (<i>L. Petit</i>). | Shelley Coll. |
| <i>d.</i> ♀ ad. sk. | Landana. | <i>L. Petit [C.]</i> . |

4. *Sitagra ocularia*.

Ploceus ocularius, *Smith, Proc. S. Afr. Inst.* 1823; *id. Ill. Zool. S. Afr.* pl. 30. fig. 2 (1839); *Gurney, Ibis*, 1862, p. 37; *Shelley, Ibis*, 1887, p. 23; *id. P. Z. S.* 1888, p. 34.

Ploceus gutturalis, *Vig. P. Z. S.* 1831, p. 92.

Hyphantornis gutturalis, *Gray, Gen. B.* ii. p. 351 (1849).

Hyphantornis ocularius, *Gray, Gen. B.* ii. p. 351 (1849); *Bp. Consp.* i. p. 440 (1850); *Reichenb. Singv.* p. 86, Taf. xliii. fig. 321 (1861); *Layard, B. S. Afr.* p. 132 (1867); *Ayres, Ibis*, 1867, p. 431; *Layard, Ibis*, 1869, p. 74; *Gray, Hand-l. B.* ii. p. 43, no. 6597 (1870); *Sharpe, Cat. Afr. B.* p. 59 (1871); *id. P. Z. S.* 1873, p. 715; *Ayres, Ibis*, 1876, p. 431; *Bocage, Orn. Angola*, p. 328

- (1881); *Sharpe in Oates' Matubele-Land*, App. p. 318 (1881); *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 200 (1882); *Butler, Feilden, & Reid, Zool.* 1882, p. 207; *Reichen. J. f. O.* 1887, p. 308.
Hyphanturgus ocellarius, *Cab. Mus. Hein. Th.* i. p. 182 (1850);
Sharpe, ed. Layard's B. S. Afr. p. 435 (1881); *Fischer, Zeitschr. ges. Orn.* i. p. 331 (1884); *id. J. f. O.* 1885, p. 133; *W. Ayres, Ibis*, 1887, p. 58.
 ? *Hyphantornis olivacea*, *Heugl. Orn. N.O.-Afr.* i. p. 505 (1870), iv. p. cxxxi (1871).
Hyphantornis crocata, *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 100 (1881); *Reichen. J. f. O.* 1885, p. 374.
Hyphantornis ocellarius, var. *crocata*, *Hartl. Zool. Jahrb.* ii. p. 341 (1887).

Adult male. General colour above olive-yellow, the scapulars like the back; rump and upper tail-coverts rather brighter yellow; wing-coverts and quills dusky brown, edged with the same olive-yellow as the back; tail-feathers dull olive-yellow, with brighter olive edges; crown of head bright orange-yellow, inclining to olive yellow on the nape and hind neck; lores and a short broad streak through the eye black; eyelid black; sides of face, ear-coverts, and cheeks rich orange-yellow, the extreme base of the cheeks black, as well as the throat, the black of the latter surrounded by a deep orange shade; sides of neck and under surface of the body brilliant yellow, the fore neck inclining to orange; sides of body and flanks olive-yellow; under wing-coverts and axillaries yellow with ashy bases; quills below ashy, whitish along the inner edge: "bill light brown, the base of the lower mandible flesh-coloured; feet ash-coloured; iris light brown" (*W. Ayres*), "pale ashy yellow" (*T. Ayres*). Total length 6 inches, culmen 0.75, wing 2.9, tail 2.2, tarsus 0.9.

Adult female. Similar to the male, but wanting the black on the throat, this being deep orange like the sides of the face. Total length 5.9 inches, culmen 0.75, wing 2.9, tail 2.45, tarsus 0.85.

Young male. Similar to the adult female but rather greener, with a dusky mark from the lores through the eye; the forehead rather brighter yellow than the head, and the eyebrow, sides of face, and underparts rather bright yellow.

S. crocata, *Hartl.*, from Equatorial Africa is a race of *S. ocellaria*, distinguished by its smaller size, shorter tail, and yellow

| | | |
|--|---|--------------------------------------|
| c, d. ♂ ad. et
imm. sk. | Eland's Post (<i>T. C. Atmore</i>). | Sharpe Coll. |
| e. ♀ ad. sk. | Natal (<i>T. Ayres</i>). | Salvin-Godman Coll. |
| f, g. ♂ ad. et juv.
sk. | Durban, Natal (<i>T. L. Ayres</i>). | Shelley Coll. |
| h-o. ♂ ad. et juv.;
p-w. ♀ ad. et
juv. sk. | Pinetown, Natal, Feb. to Dec.
(<i>T. L. Ayres</i>). | Shelley Coll. |
| x. ♂ ad. sk. | Pietermaritzburg, April 30 (<i>F. Oates</i>). | W. C. & E. G. Oates,
Esqrs. [P.]. |
| y. ♀ ad. sk. | Swazi-Land, July 22 (<i>T. E. Buckley</i>). | Shelley Coll. |
| z. ♀ ad. sk. | Macamac, E. Transvaal, June
19 (<i>W. Ayres</i>). | J. H. Gurney, Esq.,
[P.]. |
| α'. Ad. sk. | Zambesi River. | Sir J. Kirk [P.]. |
| b', c'. ♂ ♀ ad. sk. | Mozambique. | Dr. Gueinzius [C.]. |
| d', e'. ♂ ad. sk. | Kilimanjaro, 2300 to 6000 feet. | H. H. Johnston, Esq.
[P.]. |
| f'. ♂ ad. sk. | Mombasa (<i>T. Wakefield</i>). | Sharpe Coll. |
| g'. ♂ ad. sk. | Agaru, Equatorial Africa, May
1 (<i>Emin Pasha</i>). | Shelley Coll. |
| h', i'. ♂ ♀ ad. sk. | Tanjimoro, Oct. 5. | Emin Pasha [P.]. |

5. *Sitagra brachyptera*.

Ploceus brachypterus, *Swains. B. W. Afr.* i. p. 168, pl. 10 (1837); *Reichenb. Singv.* p. 83, Taf. xli. fig. 308 (1861); *Shelley, Ibis*, 1887, p. 23.

Ploceus flavigula, *Hartl. Rev. Zool.* 1845, p. 406; *Müll. Descr. Nouv. Ois. d'Afr.* pl. 20. fig. 1 (1854, teste *Shelley*).

Hyphantornis flavigula, *Gray, Gen. B.* ii. p. 351 (1849); *Cass. Proc. Philad. Acad.* 1859, p. 134; *Sharpe, P. Z. S.* 1871, p. 612; *id. Ibis*, 1872, p. 72.

Hyphantornis brachyptera, *Gray, Gen. B.* ii. p. 351 (1849); *Bp. Consp.* i. p. 440 (1850); *Hartl. Orn. W.-Afr.* p. 122 (1857); *Sharpe, Cat. Afr. B.* p. 59 (1871); *Sharpe, Ibis*, 1872, p. 72; *Shelley & Buckley, t. c.* p. 289; *Ussher, Ibis*, 1874, p. 68; *Nichols. P. Z. S.* 1878, p. 130; *Shelley, Ibis*, 1883, p. 552; *Büttik. Notes Leyd. Mus.* vii. p. 189 (1885).

Textor flavigula, *Bp. Consp.* i. p. 442 (1850).

Hyphantornis grayi (*nec Verr.*), *Hartl. Orn. W.-Afr.* p. 122 (1857); *id. J. f. O.* 1861, p. 175; *Reichenb. Singv.* p. 85, Taf. xliv. fig. 320 (1861).

Hyphantornis ocularius (*nec Smith*), *Hartl. Orn. W.-Afr.* p. 122 (1857); *id. J. f. O.* 1861, p. 175; *Gray, Hand-l. B.* ii. p. 43, no. 6598 (1870).

Symplectes brachypterus, *Hartert, J. f. O.* 1866, p. 585.

Adult male. Similar to *S. ocularia*, but smaller and with a much stouter bill*: "bill black; feet livid or bluish grey; iris pale stone-colour or yellowish grey" (*W. A. Forbes*); "iris yellowish white" (*J. Büttikofer*). Total length 5·7 inches, culmen 0·7, wing 2·9, tail 1·95, tarsus 0·85.

* Captain Shelley alludes to the absence of an olive shade (present in *S. ocularia*) as an additional specific character for *S. brachyptera*. I do not find this of much avail in a large series.

Adult female. Similar to the female of *S. ocularia*, but distinguished by its yellow throat, which entirely lacks the orange colour of the latter bird. Total length 6·5 inches, culmen 0·75, wing 3·1, tail 2·3, tarsus 0·85.

Hab. West Africa, from Senegambia to Gaboon.

| | | |
|-------------------------------|--|-------------------------|
| a. ♀ ad. sk. | Senegambia. | Governor Rendall [C.] |
| b, c. ♂ ♀ ad. sk. | Senegambia*. | Sir A. Smith [C.] |
| d, e. ♂ ♀ ad. sk. | River Gambia (Capt. Moloney). | Shelley Coll. |
| f. ♂ ad. sk. | River Gambia. | Purchased. |
| g. ♀ ad. sk. | River Gambia. | Forbes Coll. |
| h. Juv. sk. | Ashantee. | Gould Coll. |
| i. ♂ ad. sk. | Fantee (H. T. Ussher). | Shelley Coll. |
| k. ♂ ; l, m. ♀ ad. sk. | Connor's Hill, Fantee, March (G. E. S.). | Shelley Coll. |
| n. ♂ ad. sk. | Chama, Gold Coast, Sept. 28 (Sintenis). | Sharpe Coll. |
| o. ♀ ad. sk. | Beulah Road, Nov. 25 (H. F. Blissett). | Sharpe Coll. |
| p. ♂ ad. sk. | Abouri, Aguapim, Feb. 24 (G. E. S.). | Shelley Coll. |
| q. ♂ ; r, s. ♀ ad. sk. | River Volta (H. T. Ussher). | Sharpe Coll. |
| t, u. ♀ ad. sk. | Abeokuta. | F. Nicholson, Esq. [P.] |
| v, w. ♂ ; x, y, z. ♀ ad. sk. | Shonga, R. Niger, Nov., Dec. (W. A. F.). | Forbes Coll. |
| a'. ♀ ad. sk. | Cameroons Mountains (A. Crossley). | Sharpe Coll. |
| b', c'. ♂ ; d', e'. ♀ ad. sk. | Fernando Po. | L. Fraser [C.] |
| f'. ♀ ad. sk. | Kibiro, Equatorial Africa, Oct. 8. | Emin Pasha [P.] |

6. *Sitagra capensis*.

Le Carouge du Cap de Bonne Espérance, *Briess. Orn.* ii. p. 128 (1760); *Daubent. Pl. Enl.* iii. pl. 607. fig. 2.

Oriolus capensis, *Linn. Syst. Nat.* i. p. 163 (1766); *Bodd. Tabl. Pl. Enl.* p. 37 (1783); *Gm. Syst. Nat.* i. p. 392 (1788).

Le Carouge chrys de la Louisiane *Mull. Hist. Nat. Ois.* vi. p. 251

Hyphantornis capensis, *Gray*, *Gen. B.* ii. p. 351 (1849); *Bp. Consp.* i. p. 440 (1850); *Cab. Mus. Hein.* Th. i. p. 182 (1850); *Layard*, *B. S. Afr.* p. 179 (1867).

Oriolus capensis, *Reichenb. Singn.* p. 84, pl. 42. figs. 315, 316 (1861).

Oriolus aurifrons, *Reichenb. t. c.* p. 85, pl. 43. figs. 317, 318 (1861).

Hyphantornis olivaceus, *Gray*, *Hand-l. B.* ii. p. 41, no. 6575 (1870).

Adult male. General colour above bright olive-yellow, scarcely mottled with dusky bases to the feathers, which are a little more distinct on the scapulars; lower back, rump, and upper tail-coverts a little brighter than the back and more uniform; wing-coverts and quills dusky blackish, edged with olive-yellow, bright yellow on the edges of the secondaries and median and greater coverts; tail-feathers brown washed with olive, edged with yellow; crown of head bright orange-yellow, inclining gradually on the occiput and nape to olive-yellow; lores and feathers round eye dusky olive; sides of face, ear-coverts, cheeks, and under surface of body brilliant yellow; chin, the sides of the face, throat, and fore neck rather inclining to orange; under wing-coverts and axillaries ashy brown, edged with yellow; quills below dusky, ashy along the inner edge: "bill livid brown; feet and claws flesh-colour; iris light red" (*Sir A. Smith*). Total length 6·7 inches, culmen 0·9, wing 3·55, tail 2·3, tarsus 0·95.

Adult female. Much duller in colour than the male, especially below; the yellow on the forehead and sides of face also absent. General colour above olive, slightly washed with yellow, the feathers mottled with dusky centres, the lower back, rump, and upper tail-coverts more decidedly washed with yellow; wings and tail as in the male; head like the back; lores ashy; sides of face ashy olive; cheeks and remainder of under surface of body olive-yellow, washed here and there with brighter yellow; abdomen whitish, slightly washed with yellow; under tail-coverts white with yellow edges. Total length 7 inches, culmen 0·85, wing 3·65, tail 2·3, tarsus 1·05.

One male in the collection, obtained by Mr. Butler near Cape Town, has a most curious dusky throat and ear-coverts, inclining to blackish.

Hab. Western Cape Colony.

| | | |
|--|--|--------------------|
| <i>a-d.</i> ♂ ad. et juv. sk. | Cape Colony. | Sir A. Smith [C.]. |
| <i>e, f.</i> ♂ ad. et juv.;
<i>g, h, i.</i> ♀ ad. sk. | Cape Colony (<i>E. L. Layard</i>). | Sharpe Coll. |
| <i>k, l.</i> ♂ ♀ ad. sk. | Cape Colony (<i>E. L. Layard</i>). | Forbes Coll. |
| <i>m.</i> ♂ ad. sk. | Cape Colony. | Hardwicke Coll. |
| <i>n, o.</i> ♂ ♀ ad. sk. | Caledon, Cape Colony (<i>Butler</i>). | Shelley Coll. |
| <i>p.</i> ♂ ad. sk. | Cape Colony (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>q, r.</i> ♂ imm. sk. | Knysna, Dec. & Jan. (<i>C. J. A.</i>). | Sharpe Coll. |

Subspecies a. *Sitagra caffra*.

Icterus caffer, *Licht. Verz. Doubl.* p. 19 (1823).

Icterus olivaceus, *Hahn, Vög. aus Asien etc.* Lief. vi. pl. 4 (1822).

? *Ploceus aureus*, *Des Murs in Lefebvre's Voy. Abyss.* p. 180 (1845).

Hyphantornis olivaceus, *Sci. P. Z. S.* 1866, p. 23; *Gurney, Ibis*, 1868, p. 161; *Gray, Hand-l. B.* ii. p. 41, no. 6575 (1870); *Sharpe in Oates' Matabele-Land*, App. B, p. 318 (1881); *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 113 (1882).

Hyphantornis capensis (*nec L.*), *Buckley, Ibis*, 1874, p. 380; *Barratt, Ibis*, 1876, p. 206; *Butler, Feilden, & Reid, Zool.* 1882, p. 256.

Hyphantornis aurifrons (*nec T.*), *Ayres, Ibis*, 1878, p. 296, 1880, p. 105.

Hyphanturgus olivaceus, *Sharpe, ed. Layard's B. S. Afr.* pp. 432, 846 (1882); *Ayres, Ibis*, 1885, p. 344, 1886, p. 290.

Adult male. Similar to *S. capensis*, but distinguished by its brighter colour and the chestnut tinge on the head, sides of face, throat, and fore neck; "bill black, greenish yellow at base; tarsi and feet pale yellowish; iris pale chrome or pale tawny yellow" (*T. Ayres*). Total length 6·8 inches, culmen 0·95, wing 3·6, tail 2·2, tarsus 1·05.

Adult female. Similar to the female of *S. capensis*: "upper mandible light brown, the lower one straw-colour; feet light brown; iris buff" (*T. L. Ayres*). Total length 6·4 inches, culmen 0·9, wing 3·45, tail 2·1, tarsus 0·95.

Young male. At first similar to the female, but showing more or less chestnut on the throat as the moult progresses. The fact that the male at once puts on the chestnut throat disposes of the notion that this bright rufous colour is a sign of age.

Hab. Eastern Cape Colony to Natal and the Transvaal, as far as the Zambezi.

| | | |
|------------------------|-----------------------------------|-----------------------|
| a. ♂ ad. sk. | Port Elizabeth. | Sharpe Coll. |
| b. ♂ ad. sk. | Kingwilliamstown. | Capt. Trevelyan [P.]. |
| c-g. ♂ ad. et juv.; | Newcastle, June, Sept., | Shelley Coll. |
| h. ♀ ad. sk. | Oct. (<i>E. A. Butler</i>). | |
| i, k. ♂ ♀ imm. sk. | Pinetown, Natal, June, | Sharpe Coll. |
| | July (<i>T. L. Ayres</i>). | |
| l, m, n. ♂ imm.; o, p. | Pinetown, June, July, Oct. | Shelley Coll. |
| ♀ ad. et imm. sk. | (<i>T. L. Ayres</i>). | |
| q, r. ♂ ad. sk. | Transvaal. | Forbes Coll. |
| s. ♂ ad. sk. | Transvaal, Dec. 16 (<i>T. E.</i> | Shelley Coll. |
| | <i>Buckley</i>). | |
| t. ♀ ad. sk. | Transvaal, Dec. 16 (<i>F.</i> | W. E. & C. G. Oates, |

Key to the Species.

- a.* Head and under surface of body scarlet *madagascariensis*, p. 433.
b. Throat and breast yellow, the former orange;
 forehead orange *flavicans*, p. 434.

1. Foudia madagascariensis.

- Fouliméne, *Flacourt, Hist. Madag.* p. 163 (1661).
 Le Cardinal de Madagascar, *Briss. Orn.* iii. p. 112, pl. vi. fig. 2 (1760);
Sganzin, Mém. Soc. Mus. Hist. Nat. Strasb. 1840, p. 28.
Loxia madagascariensis, *Linn. Syst. Nat.* i. p. 300 (1766); *Less. Traité*, p. 446 (1831); *Vins. Voy. Madag.* Ann. B, p. 144 (1865).
 Le Foudi Lehéméné, *Buff. Hist. Nat. Ois.* iii. p. 495 (1775).
 Moineau de Madagascar, *Daubent. Pl. Enl.* iv. pl. 134. fig. 2.
 Madagascar Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 119 (1783).
 Foudi, *Vieill. Ois. Chant.* p. 96, pl. 63 (1805).
Fringilla madagascariensis, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 235 (1817).
Ploceus madagascariensis, *Hartl. Ann. & Mag. N. H.* (2) ii. p. 389 (1848); *Gray, Gen. B.* ii. p. 353 (1849); *Lafr. Rev. et Mag. de Zool.* 1850, p. 324, pl. v.; *Schl. & Poll. Faune Madag., Ois.* p. 109 (1868); *Gray, Hand-l. B.* ii. p. 45, no. 6620 (1870); *Milne-Edwards and Grandid. Hist. Nat. Ois.* p. 449, *Atlas*, pl. 177^a. fig. 3, pls. 181, 182 (1885); *Shelley, Ibis*, 1887, p. 15.
Ploceus ruber (*nec Gm.*), *Gray, Gen. B.* ii. p. 353 (1849).
Foudia madagascariensis, *Bp. Consp.* i. p. 445 (1850); *Hartl. Faun. Madag.* p. 55 (1861); *Reichenb. Singv.* p. 68, Taf. xxxi. fig. 243 (1861); *E. Newton, Ibis*, 1861, p. 272, 1863, p. 350; *Roch & E. Newton, Ibis*, 1862, p. 275; *Sci. Ibis*, 1864, p. 299; *A. Newton, P. Z. S.* 1865, p. 836; *E. Newton, Ibis*, 1867, pp. 346, 359; *Grandid. Rev. et Mag. de Zool.* 1867, p. 388; *Sharpe, P. Z. S.* 1871, p. 319; *Hartl. Vög. Madag.* p. 212 (1877); *Oust. Bull. Soc. Philom.* 1877, p. 101, 1878, p. 174; *Sharpe, Rep. Voy. H.M.S. 'Alert,'* p. 483 (1881).
Calyphantria madagascariensis, *Cab. in Von der Decken's Reis.* iii. p. 31 (1869); *Finsch & Hartl. Vög. Ostaf.* p. 407 (1870).
Ploceus (*Foudia*) *madagascariensis*, *Milne-Edwards & Oust. N. Arch. Mus.* (2) vi. p. 267 (1884).

Adult male. General colour above bright crimson, the feathers of the mantle, back, and scapulars with black centres; lower back, rump, and upper tail-coverts uniform crimson; lesser and median coverts black, with crimson edges; greater coverts black, edged with whitish, slightly tinged with olive, the inner ones with crimson; bastard-wing, primary-coverts, and quills blackish, with olive margins; tail-feathers blackish, edged with olive, the centre ones with rosy; crown of head, occiput, and nape bright crimson; hind neck like the back, but less distinctly mottled with black; lores and feathers round eye black, extending in a patch above the ear-coverts; sides of face, ear-coverts, cheeks, and entire under surface of body bright crimson; under wing-coverts and axillaries whitish, tinged with olive, the latter with crimson; quills below dusky, ashy along

the inner edge: "bill brownish, becoming black in the breeding-season; feet rosy; iris brown" (*A. Grandidier*). Total length 5·3 inches, culmen 0·5, wing 2·65, tail 1·65, tarsus 0·75.

Adult female. Dull olive, mottled with black centres to the feathers of the back, the head and hind neck not so distinctly streaked; the lower back, rump, and upper tail-coverts uniform dull olive; wing-coverts, quills, and tail-feathers blackish, edged with olive, inclining to greenish white on the median and greater coverts and inner secondaries; a distinct eyebrow and sides of face olive-whitish, more or less inclining to green on the latter, with a dusky line along the upper ear-coverts; under surface of body ashy grey, yellowish on the throat, and greener on the sides of the body, flanks, and under tail-coverts, as well as on the under wing-coverts. Wing 2·8 inches.

Young male. Like the old female, but with more ashy on the back; the underparts also ashy grey instead of olive; on the head and throat some red feathers.

Hab. Madagascar and the neighbouring islands.

| | | |
|----------------------------|---|------------------------|
| a. ♂ ad. sk. | Madagascar. | Riocour Coll. |
| b, c. ♀ ad. et
juv. sk. | Madagascar. | Mr. Gerrard [C.]. |
| d. ♀ ad. sk. | Madagascar. | Zoological Society. |
| e. ♂ juv. sk. | N. Madagascar. | Mr. A. Crossley [C.]. |
| f. ♂ ad. sk. | Madagascar. | Shelley Coll. |
| g. ♂ ad. sk. | Saralalan, N. Madagascar
(<i>A. Crossley</i>). | Salvin-Godman Coll. |
| h, i. ♂ ♀ ad. sk. | Ankafana Forest, Betsileo,
Feb. (<i>W. Deans Cowan</i>). | Tweeddale Coll. |
| k. ♀ ad. sk. | Ankafana Forest, Betsileo,
Feb. (<i>W. D. Cowan</i>). | Shelley Coll. |
| l. ♀ ad. sk. | Mauritius (<i>Barclay</i>). | Gould Coll. |
| m. ♂ juv. sk. | Mauritius (<i>Bewsher</i>). | Shelley Coll. |
| n. ♂ ad. st. | Mauritius. | Purchased. |
| o. ♂ ad. sk. | Réunion, March 23 (<i>Van
Dam</i>). | Tweeddale Coll. |
| p. ♂ ad. sk. | Isle des Roches, Amirante
group, March. | Dr. Coppinger [C.]. |
| q, r, s. ♂ ad. et | Malé, Seychelles. | J. J. Lister, Esq [P]. |

back broadly streaked with dark brown; lower back uniform, the rump yellow, forming a band across it; upper tail-coverts light olivaceous brown; wing-coverts blackish brown, with greyish-olive edgings to the lesser series, the greater and median coverts broadly edged with whitish; quills dark brown, the primaries narrowly edged with yellowish, the secondaries more broadly margined with whity brown, lighter on the innermost; tail-feathers ashy brown, all edged with olive-yellow; head and neck all round bright yellow, as also the breast; the forehead, lores, sides of face, and cheeks orange-scarlet, the throat also washed with the latter colour; feathers in front of, and round the eye, black; rest of under surface of body light yellow, the flanks brownish; under wing-coverts light ashy brown. Total length 5·2 inches, culmen 0·6, wing 2·7, tail 2·1, tarsus 0·8.

The series of male specimens is very complete, showing gradual transitional changes from the time when the back is like that of the female without any trace of the yellow band on the rump, the orange colouring on the head and neck being apparently gained by a moult. The yellow band across the rump appears to be assumed after the yellow head and neck are fully coloured. Of two males killed by Mr. Gulliver in November, 1874, one has the band tolerably well defined, the other only shows its approach by the presence of a single yellow feather.

Adult female. General colour above brown, the head washed with olive, all the feathers mesially centred with dark brown, more distinct on the back and scapulars; rump uniform brown; wing-coverts blackish brown, with greyish edgings to the least series, the median and greater coverts rather broadly edged with white; quills dark brown, narrowly margined with olive-yellow, the secondaries with lighter brown; tail-feathers dark brown, with narrow olive-yellow margins; lores yellowish; ear-coverts olivaceous brown, with paler shaft-streaks; cheeks and under surface of body light yellow, the sides of the neck ashy, the sides of the body light brown; under wing-coverts light ashy brown; bill brown. Total length 5 inches, culmen 0·55, wing 2·65, tail 2·1, tarsus 0·85.

The size of the bill in this species varies very much in length and also in stoutness. In some examples of the brown-plumaged birds the beak is black, and these I take to be young males, as the black bill is accompanied by a certain bright-yellow shade about the face and throat, and the under surface is rather brighter yellow.

Hab. Island of Rodriguez.

| | | |
|---|------------------------------------|-------------------------|
| <i>a, b.</i> ♂; <i>c, d.</i> ♀
ad. sk. | Rodriguez (<i>J. Gulliver</i>). | Transit of Venus Exped. |
| <i>e-h.</i> ♂; <i>i-m.</i> ♀
ad. sk. | Rodriguez (<i>H. H. Slater</i>). | Transit of Venus Exped. |

50. NELICURVIUS.

Nelicurvus, *Bp. Consp.* i. p. 430 (1850) Type. N. nelicourvi.

Range. Confined to Madagascar.

1. Nelicurvus nelicourvi.

Le Nelicourvi de Madagascar, *Sonn. Voy. Ind.* ii. p. 200, pl. cxii. (1782).

Pensile Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 131 (1783).

Parvus (*err. pro Parus*) nelicourvi, *Scop. Del. Faun. et Flor. Insubr.* p. 96 (1786).

Loxia pensilis, *Gm. Syst. Nat.* i. p. 800 (1788); *Daud. Traité*, ii. p. 306 (1800).

Ploceus pensilis, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 128 (1810); *Less. Compl. Buff.* viii. p. 311 (1837); *Schl. P. Z. S.* 1860, p. 423; *id. & Poll. Faun. Madag., Ois.* p. 108 (1868); *Sharpe, P. Z. S.* 1870, p. 395; *Milne-Edwards & Grandid. H. N. Madag., Ois.* p. 446, *Atlas*, pl. 177^a, fig. 2, and pls. 179, 180 (1885).

Ploceus nelicourvi, *Hartl. Ann. & Mag. Nat. Hist.* (2) ii. p. 380 (1848); *Gray, Gen. B.* ii. p. 352 (1840); *id. Hand-l. B.* ii. p. 44, no. 6617 (1870).

Nelicurvus pensilis, *Bp. Consp.* i. p. 430 (1850); *Hartl. Faun. Madag.* p. 54 (1861); *Reichenb. Singr.* p. 74, *Taf.* xxxiii. fig. 261 (1861); *E. Newton, Ibis*, 1863, p. 349; *Grandid. Rev. et Mag. de Zool.* 1867, p. 388.

Hyphantornis pensilis, *Hartl. Vög. Madag.* p. 210 (1877).

Nelicurvus nelicourvi, *Bartlett, P. Z. S.* 1879, p. 771.

Adult male. General colour above olive-green, the wing-coverts like the back; quills and tail-feathers dusky blackish, externally olive-green; the centre tail-feathers dull olive-yellow, dusky blackish at the ends; head, ear-coverts, fore part of cheeks, and a spot on the chin black; hinder cheeks, sides of neck, and a collar round the hind neck, as well as the throat and fore neck, bright orange-yellow, inclining to deep orange on the hinder neck; sides of fore neck olive-yellow like the back; remainder of under surface from the chest downwards clear slaty grey, washed with olive-green on the lower flanks and thighs, under tail-coverts, chestnut; under wing-

and fore neck dull yellow; remainder of under surface pale ashy, washed with olive; under tail-coverts pale tawny rufous; bill white with a dusky tip.

Even after the bill is black, and the underparts resemble those of the adult, the young bird has the head olive-green like the back, with a yellow eyebrow. Every observer has hitherto determined the bird with the yellow forehead to be the old female, but no attempt has yet been made to find out what the seasonal plumage is like, and yet it ought to be well marked in such a strikingly-coloured bird. My own impression is that some of the specimens asserted to be young birds are really the old ones in seasonal plumage.

Hab. E. and N.W. Madagascar.

| | | |
|------------------------|--|-----------------------|
| a. Juv. sk. | Madagascar. | Sir A. Smith [C.]. |
| b. ♂ imm. sk. | N.E. Madagascar (<i>Pollen & Van Dam</i>). | Sharpe Coll. |
| c. ♂ ad. sk. | Nossi Vola, N. Madagascar. | Mr. A. Crossley [C.]. |
| d, e, f. [♂ ♀] ad. sk. | Nossi Vola (<i>A. Crossley</i>). | Sharpe Coll. |
| g. [♀] ad. sk. | Nossi Vola (<i>A. C.</i>). | Salvin-Godman Coll. |
| h, i. [♂ ♀] ad. sk. | Saralalan (<i>A. C.</i>). | Shelley Coll. |
| k. ♀ juv. sk. | Ankafana Forest, Betsileo, March 18 (<i>W. Deans Cowan</i>). | Shelley Coll. |
| l. Juv. sk. | Betsileo. | Rev. A. Shaw [C.]. |

51. HYPHANTORNIS*.

Type.

| | |
|--|-------------------------|
| <i>Hyphantornis</i> , <i>Gray</i> , <i>Gen. B.</i> ii. p. 351 (1849).... | <i>H. cucullatus</i> . |
| <i>Xanthophilus</i> , <i>Reichenb. Singv.</i> p. 84 (1861)..... | <i>H. aureillavus</i> . |
| <i>Oriolmus</i> , <i>Reichenb. t. c.</i> p. 84 (1861)..... | <i>H. subaureus</i> . |



Head of *Hyphantornis cucullatus*, to show nostrils and nuchal bristles.

Range. Confined to Africa.

* HYPHANTORNIS ANOMALUS.

Plocus anomalus, *Reichenb. J. f. O.* 1887, pp. 214, 307.

Described from a male, not fully plumaged, but said to differ in the very short first primary and short tail from all other Weaver-birds.

Hab. Stanley Falls, Upper Congo.

Key to the Species.

- a. Abdomen never uniform chestnut.
 - a''. Throat not black.
 - a'''. Abdomen yellow like the breast.
 - a⁴. Chin and throat chestnut-brown.
 - a⁵. Base of forehead chestnut, as well as the fore part of the cheeks.
 - a⁶. Chin and ear-coverts chestnut-brown, extending beyond the line of the eye; base of forehead chestnut; bill stout *galbula* ♂, p. 442.
 - b⁴. Entire throat chestnut-brown, descending to a point; ear-coverts golden yellow, the chestnut not extending beyond the line of the eye *castanops* ♂, p. 443.
 - b⁵. Forehead orange-yellow like the head.
 - a⁶. Sides of face deep chestnut like the throat; back and underparts golden yellow *xanthopterus*, p. 444.
 - a⁶. Sides of face orange like the head; back dark olive-yellow; under surface of body orange *aurantius* ♂, p. 444.
 - b⁴. Throat orange or yellow.
 - c⁴. Bill black.
 - a⁷. Outer tail-feathers for the most part pale yellow on the inner web.
 - a⁷. Larger; olive golden above; rump similar, with scarcely any yellow on it. *subaureus* ♂, p. 445.
 - b⁷. Smaller; bright golden yellow; rump bright yellow *aureiflavus* ♂, [p. 446.
 - f⁴. Outer tail-feathers pale olive-brown, fringed with yellow along the inner webs.
 - c⁷. With orange on the chin and throat.
 - a⁸. Forehead or crown yellow;

- rump and upper tail-coverts
 golden yellow. *bojeri* ♂, p. 448.
 7 Throat yellow, but with no
 orange.
*c*⁸. Head olive-greenish like the
 back, with a yellow eye-
 brow } *xanthops* ♀, p. 447.
 } *jamesoni* ♀, p. 447.
*d*⁹. Head rufous-bay or chestnut.
*e*⁹. Size smaller; hind peck
 like the back; wing-
 coverts edged with yellow
 like the primaries [p. 448.
*d*⁹. Size larger; hind neck
 chestnut like the crown;
 wing-coverts with pale
 yellow ends, lighter than
 the primaries *castaneiceps* ♂,
*d*⁵. Bill horn-brown *princeps* ♂, p. 449.
b^{'''}. Abdomen whitish. *subaureus* ♀, p. 445.
*c*⁴. Head olive-greenish, in contrast to the
 brown or greyish back.
*e*¹. Larger; with white edges to the
 greater coverts; wing exceeding
 3 inches; bill massive; throat
 yellow, contrasting with the rest of
 the under surface.
*g*⁶. Back ashy, contrasting with the
 head.
*e*⁷. Breast and sides of the body
 isabelline.
*e*⁸. Bill horn-brown *spilonotus* ♀, p. 468.
*f*⁹. Bill black. *nigriceps* ♀, p. 456.
*f*⁷. Breast and sides of body light
 tawny buff; bill horn-brown . *cucullatus* ♀, p. 451.
*h*⁶. Back brown, contrasting with the
 head; sides of body light tawny
 buff; bill horn-brown [p. 453.
*f*⁵. Smaller; wing not exceeding
 3 inches; with yellow edges to the
 greater coverts; bill smaller, black-
 ish, with a horny base to the
 lower mandible. *abyssinicus* ♀,
*i*⁶. Back very distinctly streaked with
 black *fischeri* ♀, p. 458.
*k*⁶. Back scarcely streaked with darker
 brown *capitalis* ♀, p. 458.
*d*⁴. Head not strikingly different from the
 colour of the back.
*g*⁵. Wing-coverts and quills edged with
 brown or whity brown; back
 brown, streaked with black; breast
 washed with tawny buff [p. 473.*
rubiginosus ♀,

* Cf. subgenus *Cinnamopteryx*, infra p. 471.

- h*⁵. Quills edged with olive-yellow.
f. Throat bright yellow; a bright yellow eyebrow.
*g*⁷. Bill blackish; head greenish yellow, contrasting with the browner back *collaris* ♀, p. 455.
*h*⁷. Bill horny white; head olive-yellow, a little lighter than the back *princeps* ♀, p. 449.
*m*⁶. Throat whitish or only slightly tinged with yellow.
*i*⁷. Upper surface ashy brown, streaked with dusky; toes ashy whitish; throat washed with pale yellow *relatus* ♀, p. 464.
*k*⁷. Upper surface yellowish green, scarcely streaked with dusky; size small *cabanisi* ♀, p. 461.
*n*⁶. Throat yellowish white; size large; wing 4 inches; culmen 1·06 inch; no pale eyebrow *grandis* ♀, p. 450.
*o*⁷. Throat black.
*e*⁷. Head entirely or for the most part black, i. e., more than a frontal band of black.
*e*⁴. Back olive-yellow or greenish, separated from the black head by a broad chestnut collar, which also separates the black throat from the yellow breast; culmen 1·1 inch *grandis* ♂, p. 450.
*f*⁴. Back golden yellow, uniform on the mantle and bordered on each side by a broad band of black.
*i*⁷. Entire crown black; sides of neck deep chestnut, forming a collar which extends round the hind neck *cucullatus* ♂, p. 451.
*k*⁶. Forehead and vertex black; hinder crown orange-chestnut; hind neck and sides of neck golden yellow, orange on the nape *abyssinicus* ♂, [p. 453.
*l*⁷. Similar to the foregoing, but the hinder crown deep chestnut, the

- h*⁴. Back uniform olive-yellow; head black, forming a cap with a brighter yellow collar round the hind neck.
- o*⁵. With no chestnut shade below the black throat; head black; fore neck and under surface yellow.... [p. 457.
melanocephalus ♂,
- p*⁵. With a distinct shade of chestnut or orange-chestnut below the black throat.
- o*⁶. Smaller; chestnut colour not extended over the sides of the breast; wing-coverts brighter yellow with dusky bars..... *capitalis* ♂, p. 458.
- p*⁶. Larger; chestnut colour extended over the sides of the breast and sides of body; wing-coverts black, tipped with yellow..... *fischeri* ♂, p. 458.
- i*¹. Back bright yellow, the hind neck being the same, so that there is no yellow neck-collar below the black head..... [p. 459.
dimidiatus ♂,
- k*⁴. Back reddish or burnt-sienna brown; abdomen yellow..... *badius* ♂, p. 460.
- l*¹. Back olive-yellow; no black cap, but the fore part of the crown black; hinder crown yellow or chestnut-brown, but no distinct collar of bright yellow on the hind neck.
- q*⁵. Hinder crown chestnut; a deep orange shade below the black throat [p. 460.
intermedius ♂,
- r*⁵. Hinder crown bright yellow, only separated from the black forehead by a chestnut line *cabanisi* ♂, p. 461.
- d*^{'''}. Head yellow, sometimes with a black forehead.
- m*⁴. Back uniform or only slightly streaked with dusky.
- s*⁵. Base of forehead black as well as the lores.
- q*⁶. Black of throat restricted, not reaching to a point on the fore neck.
- l*⁷. Black restricted to upper throat. } *vitellinus* ♂, p. 462.
*m*⁷. Black occupying the entire throat } *reichardi*, p. 463.
*r*⁶. Black of throat ending in a point on the fore neck; cheeks and ear-coverts black. *shelleyi* ♂, p. 464.
- n*⁷. Ear-coverts entirely black *relatus* ♂, p. 464.
- o*⁷. Ear-coverts chestnut like the hinder cheeks and crown *tæniopterus*, p. 467.
- t*⁶. Base of forehead yellow; lores black; throat black, extending in a narrow line on the fore neck..... *heuglini* ♂, p. 468.

- n⁴. Back mottled, being yellow with black bases to the feathers; no black on the forehead.
- u². With no chestnut shade round the black on the fore neck; back strongly mottled with yellow and black; the black not continued above the eye..... *spilonotus* ♂, p. 468.
- v². A chestnut shade round the black of the fore neck; the black continued above the eye; back feebly mottled with black and yellow..... *spekii* ♂, p. 469.
- e''''. Head blackish, with a broad yellow eyebrow..... [p. 470.
superciliatus ♂,

1. *Hyphantornis galbula*.

Ploceus galbula, Rüpp. *Neue Wirb.* p. 92, pl. 32, fig. 2 (1835-40); *id.* *Syst. Uebers.* p. 76 (1845); *Heugl. Syst. Uebers.* p. 37 (1853); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 520 (1856); *Reichenb. Synop.* p. 81, Taf. xxxix, fig. 297 (1861); *Reichen. Zool. Jahrb.* i. p. 119 (1886); *Shelley, Ibis*, 1887, p. 26.

Ploceus aureus, *Des Murs in Lefebvre's Voy. Abyss.* p. 108 (1845).

Hyphantornis galbula, Gray, *Gen. B.* ii. p. 351 (1849); *Cab. Mus. Hein. Th.* i. p. 181 (1850); *Brehm, Reis. Habesch*, p. 217 (1863); *Gray, Hand-l. B.* ii. p. 40, no. 6560 (1870); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 557, tab. xviii, fig. d (1870), iv. p. cxxx (1871); *Blunf. Geol. & Zool. Abyss.* p. 404 (1870); *Finch, Trans. Z. S.* vii. p. 262 (1870); *id. & Hartl. Vög. Ostaf.* p. 398 (1870); *Sharpe, Cat. Afr. B.* p. 58 (1871); *Antin. & Salvad. Viagg. Bogos*, p. 121 (1873); *Salvad. Ann. Mus. Genov.* (2) i. p. 191 (1884), vi. p. 201 (1886); *Yerbury, Ibis*, 1886, p. 18.

Textor galbula, *Bp. Consp.* i. p. 441 (1860).

Adult male. General colour above olive-yellow slightly mottled with dusky centres to the feathers, which are much more distinct on the scapulars; lower back, rump, and upper tail-coverts clearer yellow; lesser wing-coverts dusky brown, fringed with olive-yellow; median and greater coverts, bastard-wing, primary-coverts, and quills dusky brown edged with yellow, brighter on the coverts and

rump, and upper tail-coverts clearer yellow; head almost uniform olive-yellow; wings brown, washed with yellow, the median and greater coverts whitish at their ends, the quills brighter yellow on their margins; tail pale olive-brown, with yellow edges; a faint yellow eyebrow; sides of face light isabelline with a yellow tinge, slightly more pronounced on the cheeks; throat whitish washed with pale yellow; fore neck, breast, and sides of body isabelline brown, with a slight yellow tinge; centre of breast and abdomen whitish. Total length 5 inches, culmen 0·6, wing 2·6, tail 1·65, tarsus 0·8.

Hab. North-eastern Africa from Shoa to Nubia, and also occurring in Southern Arabia.

| | | |
|----------------------------|--|-------------------------------|
| a. Pull. sk. | Nubia (<i>Hedenborg</i>). | Sharpe Coll. |
| b. ♂ ad. sk. | Hor Tamanib, Nubia (<i>J. K. Lord</i>). | Sharpe Coll. |
| c. ♂ ad. sk. | Sennaar. | Sharpe Coll. |
| d. ♂ ad. sk. | Anseba Valley, Bogos, July 23. | W. T. Blanford, Esq.
[C.]. |
| e. ♀ juv. sk. | Ailat, June 29 (<i>W. Jesse</i>). | Tweeddale Coll. |
| f, g. ♂ ad. sk. | Bejook, July 16 (<i>W. Jesse</i>). | Salvin-Godman Coll. |
| h. ♀ ad. sk. | Ain, Samhar, July 6. | W. T. Blanford, Esq.
[C.]. |
| i-m. ♂ imm.,
♀ ad. sk. | Azoos, Samhar (<i>Esler</i>). | |
| n. ♂ ad. sk. | Abyssinia. | Sir A. Smith. |
| o. ♀ ad.; p. ♂
juv. sk. | Zoulla, Feb. 4. | W. T. Blanford, Esq.
[C.]. |
| q, r. ♂ ♀ ad. sk. | Koomaylee, March 28 (<i>W. Jesse</i>). | |
| s. ♂ ad. sk. | Undul Wells, May 28 (<i>W. Jesse</i>). | Shelley Coll. |
| t, u. ♂ ad. sk. | Shoa, March, April (<i>O. Antinori</i>). | Shelley Coll. |
| v, w. ♂ ad. sk. | Shoa, May (<i>Sir W. C. Harris</i>). | India Mus. |
| x. ♂ ad. sk. | Southern Arabia (<i>Hemprich & Ehrenberg</i>). | Shelley Coll. |
| y, z. ♂ ♀ ad. sk. | Aden. | C. Chevallier, Esq.
[P.]. |
| a', b'. ♂ ♀ ad. | Lahej, Aden, Jan. | Major Yerbury [P.]. |

2. *Hyphantornis castanops*. (Plate XIII. fig. 1.)

Ploceus castanops, *Shelley*, *P. Z. S.* 1888, p. 35.

Adult male. Similar to *H. xanthopterus* but with the back green; lesser wing-coverts like the back; median and greater coverts as well as the secondaries blackish, rather broadly edged with yellow; the bastard-wing, primary-coverts, and quills blackish, edged with yellowish green; crown, sides of neck, and under surface of body yellow as in *H. xanthopterus*, the base of the forehead, lores, fore part of cheeks and ear-coverts, and entire throat, chestnut: "bill black; feet reddish; iris straw-yellow" (*Emin Pasha*). Total length 5·8 inches, culmen 0·75, wing 2·8, tail 1·75, tarsus 0·9.

Hab. Equatorial Africa.

| | | |
|------------------------------|---------------|---|
| a-e. ♂ ad.; f. ♀
juv. sk. | Wadelai, Aug. | Emin Pasha [P.].
(Types of species.) |
|------------------------------|---------------|---|

3. *Hyphantornis xanthopterus*. (Plate XIII. fig. 2.)

Hyphantornis, sp., *Kirk, Ibis*, 1864, p. 322.

Hyphantornis xanthopterus, *Finsch & Hartl. Vög. Ostaf. p. 300* (1870); *Gray, Hand-l. B. ii. p. 43, no. 6602* (1870); *Sharpe, ed. Layard's B. S. Afr. p. 443* (1884).

Hyphantornis castaneigula, *Cab. J. f. O. 1884, p. 240, pl. 3. fig. 1.*

Ploceus castaneigula, *Reichen. Zool. Jahrb. i. p. 118* (1886).

Ploceus xanthopterus, *Shelley, Ibis*, 1887, p. 25.

Adult male (type of species). General colour above bright yellow, almost uniform, with a few dusky greenish centres to the feathers of the back, more distinct on the scapulars; lower back, rump, and upper tail-coverts perfectly uniform yellow; wing-coverts yellow, with dusky bases; bastard-wing and primary-coverts dusky brown, edged with yellow; quills yellow, blackish brown at the tips and along the outer margin of the shaft, the edges of the quills bright yellow; tail-feathers light olive-brown, yellow along the shaft, the remainder pale yellow, pale olive-brown along the outer web and at the end, the margins yellow; crown of head and nape golden yellow, as also the sides of face and hinder ear-coverts; lores blackish; feathers below the eye, fore part of ear-coverts, and cheeks, as well as the throat, deep chestnut; sides of neck and under surface of body bright yellow; under wing-coverts and quill-lining bright yellow; bill black. Total length 5·5 inches, culmen 0·65, wing 2·95, tail 2, tarsus 0·95.

Hab. Zambesi and Shiré Rivers.

a. ♂ ad. sk. Shiré Valley (*Sir J. Kirk*). Livingstone Exped.
(Type of species.)

4. *Hyphantornis aurantius*. (Plate XIII. fig. 3.)

Malimbus aurantius, *Vieill. Ois. Chant. p. 73, pl. 44* (1805).

Ploceus aurantius, *Vieill. N. Dict. d'Hist. Nat. xxxiv. p. 130* (1810); *Swains. An. in Menag. p. 306* (1837); *Shelley, Ibis*, 1887, p. 25; *Büttik. Notes Leyden Mus. xi. p. 134* (1889).

Hyphantornis aurantius, *Gray, Gen. B. ii. p. 351* (1849); *Bp. Consp. i. p. 440* (1850); *Hartl. Orn. W.-Afr. p. 121* (1857); *Reichenb.*

bastard-wing, primary-coverts, and quills black, edged with bright yellow; tail-feathers dull olive-yellow, edged with brighter yellow on the inner web; crown of head, nape, and hind neck orange-yellow, as also the sides of face and ear-coverts; cheeks and throat deep chestnut; chin, remainder of under surface of body from the fore neck downwards, orange-yellow, paler on the lower abdomen, flanks, thighs, and under tail-coverts; the breast slightly washed with orange; under wing-coverts yellow; quills below dusky, yellow along the inner edge: "bill black in adult; iris yellowish brown" (*J. Büttikofer*): "feet flesh-colour; iris orange-brown" (*W. A. Forbes*). Total length 5·3 inches, culmen 0·65, wing 2·8, tail 1·7, tarsus 0·7.

Adult female. Resembles the male in colour; feet flesh-colour; iris red (*J. Büttikofer*).

Young. Uniform olive-green above, with darker centres to the feathers; edges of secondaries and wing-coverts olive-yellow, but not so bright or so broad as in the adults; chin, throat, a superciliary stripe, edge of wing, and under wing-coverts yellow; chest, abdomen, vent, sides of body, and under tail-coverts pale grey, whitish on the centre of the breast and abdomen and on the under tail-coverts: "bill and feet flesh-colour; iris red" (*J. Büttikofer*).

Hab. West Africa, from Liberia to the Niger and to the Congo.

| | | |
|------------------------|--|---------------|
| <i>a.</i> Ad. sk. | Bonny, Nov. 21 (<i>A. Crossley</i>). | Sharpe Coll. |
| <i>b.</i> ♂ ad. sk. | Abutschi, River Niger, Aug. (<i>W. A. F.</i>). | Forbes Coll. |
| <i>c-e.</i> Ad. sk. | Gaboon (<i>Du Chaillu</i>). | |
| <i>f, g.</i> ♂ ad. sk. | Landana (<i>Dr. Lucan</i>). | Shelley Coll. |

5. *Hyphantornis subaureus*.

Ploceus subaureus, *Smith, Proc. S. Afr. Inst.* 1832, April, *file A. Smith, Ill. Zool. S. Afr., Aves*, pl. 30. fig. 1 (1839); *Shelley, Ibis*, 1887, p. 25.

Hyphantornis subaureus, *Gray, Gen. B.* ii. p. 350 (1849); *id. Hand-l. B.* ii. p. 41, no. 6573 (1870); *Gurney, Ibis*, 1873, pp. 255, 282.

Oriolus subaureus, *Reichenb. Singv.* p. 84, Taf. xlii. fig. 314 (1861).

Adult male. General colour above yellow, with somewhat of a dusky olive shade in the middle and on the margin of the feathers; lesser wing-coverts like the back; median and greater coverts, bastard-wing, primary-coverts, and quills dusky olive, edged with bright yellow; tail-feathers dusky olive-yellow, brighter yellow along the inner web; crown of head golden yellow, duller on the hinder crown and nape, which are like the hind neck; forehead bright golden yellow, inclining to orange; lores and eyelid dusky blackish; sides of face, ear-coverts, cheeks, and under surface of body yellow, inclining slightly to orange on the sides of the face, throat, and chest; sides of body and flanks slightly washed with olive-greenish; under wing-coverts and axillaries, as well as the quill-lining, bright yellow: "bill liver-brown, the under mandible slightly mottled with reddish brown; legs, toes, and claws deep

flesh-colour, the latter clouded with brown; iris red" (Sir A. Smith). Total length 6.1 inches, culmen 0.7, wing 2.2, tail 2.1, tarsus 0.9.

Adult female. Not very different from the male, but a little duller in colour, and the yellow of the underparts less brilliant. Total length 5.8 inches, culmen 0.7, wing 3.15, tail 1.95, tarsus 0.9.

Hab. S.E. Africa; apparently confined to Natal; ? Transvaal.

| | | |
|------------------------------|--|--|
| a, b. ♂ ad.; c, d. ♀ ad. sk. | Algoa Bay. | Sir A. Smith [C.]
(Types of species.) |
| e. ♂ ad. sk. | Natal. | Dr. Gueinzus [C.] |
| f. [♀] ad. sk. | Natal. | Forbes Coll. |
| g. ♀ ad. sk. | Natal (<i>T. Ayres</i>). | Salvin-Godman Coll. |
| h. ♀ ad. sk. | Lower Umgeni River, Jan.
(<i>T. Ayres</i>). | Shelley Coll. |
| i. ♂ ad. sk. | Durban (<i>Gordge</i>). | Shelley Coll. |
| k, l. ♂ ad. sk. | Pinetown, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| m. ♀ ad. sk. | Ladysmith, Natal, Nov. 18
(<i>Savile Reid</i>). | Shelley Coll. |

6. *Hyphantornis aureiflavus*. (Plate XIII. fig. 4.)

Ploceus aureoflavus, Smith, *Ill. Zool. S. Afr.*, *Accs.*, text to pl. 30. fig. 1 (1839); *Reichen. Zool. Jahrb.* i. p. 121 (1886); *Shelley, Ibis*, 1887, p. 26.

Hyphantornis aureoflavus, Gray, *Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 122 (1857); *Gray, Hand-l. B.* ii. p. 41, no. 6571 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 400 (1870); *Cab. J. f. O.* 1878, p. 231; *Fischer & Reichen. J. f. O.* 1878, p. 264, 1880, p. 142; *Shelley, P. Z. S.* 1881, p. 584; *Fischer, Zeitschr. ges. Orn.* i. p. 330 (1884); *id. J. f. O.* 1885, p. 133.

Textor aureoflavus, Bp. *Consp.* i. p. 441 (1850).

Hyphantornis aurea, *Hartl. J. f. O.* 1860, p. 180 (ex *Natt. MSS.*); *Finsch, J. f. O.* 1868, p. 169; *Cab. in Von der Decken's Reis.* iii. p. 32 (1869).

Xanthophilus sulfureus, *Reichenb. Singv.* p. 84, Taf. xlii. fig. 313 (1861).

Ploceus aurantius, var. (*nec V.*), *Bianc. Spec. Zool. Mosamb. fasc.* xviii. p. 322 (1865).

Hyphantornis aureiflavus, *Haugl J. f. O.* 1867, p. 389

| | | |
|------------------|---------------------------------------|---|
| a. Ad. sk. | [F. Africa.]* | Sir A. Smith [C.]
(Type of species.) |
| b. Ad. sk. | Zanzibar. | Sir J. Kirk [C.] |
| c, d, e. Ad. sk. | Pangani River (<i>Sir J. Kirk</i>). | Shelley Coll. |
| f. Juv. sk. | Malindi (<i>Sir J. Kirk</i>). | Shelley Coll. |

7. *Hyphantornis xanthops*.

Hyphantornis xanthops, *Hartl. Ibis*, 1862, p. 342; *Mont. t. c.* p. 335; *Gray, Hand-l. B.* ii. p. 43, no. 6600 (1870); *Sharpe, P. Z. S.* 1873, p. 717; *id. & Bouvier, Bull. S. Z. France*, i. p. 47 (1876), iii. p. 74 (1878); *Bocage, Journ. Lisb.* vii. p. 244 (1880); *id. Orn. Angola*, p. 327 (1881); *Sharpe, ed. Layard's B. S.-Afr.* p. 438 (1881); *Souza, Journ. Lisb.* 1886, p. 166, 1887, p. 99; *id. op. cit.* (2) i. p. 48 (1889).

Hyphantornis aurantiigula, *Cab. J. f. O.* 1875, p. 238; *Reichen. J. f. O.* 1877, p. 27; *Cab. J. f. O.* 1878, p. 231; *Reichen. Mitth. Afrik. Ges.* i. p. 5; *Bocage, Orn. Angola*, pp. 331, 557 (1881).

Ploceus xanthops, *Reichen. Zool. Jahrb.* i. p. 123, pl. 5. fig. 1 (1886); *Shelley, Ibis*, 1887, p. 25.

Adult male (type of species). Similar to *H. subaureus*, but having a decidedly chestnut tinge on the throat and fore neck; the wings and tail are both darker than in the latter species, the wing-coverts and quills being dark brown, with olive-yellow margins, the inner webs wanting the broad edging of bright yellow; the tail-feathers dingy olive-brown with yellow edges, but wanting the broad yellow edging to the inner web. Total length 7 inches, culmen 0·8, wing 3·6, tail 2·6, tarsus 1·15.

Hab. S.W. Africa, from Loango to Angola and Benguela.

| | | |
|-----------------------------|---|--------------------------------------|
| a. ♀ ad. sk. | Loango. | Forbes Coll. |
| b, c. ♂; d, e. ♀
ad. sk. | Lower Congo (<i>L. Petit</i>). | Shelley Coll. |
| f, g. Ad. sk. | Kabinda, Congo, Aug. | Commander Sperling
[P.] |
| h. Ad. sk. | Angola. | Monteiro Coll.
(Type of species.) |
| i. ♂ ad. sk. | Maconjo, Angola (<i>J. Anchieta</i>). | Sharpe Coll. |
| k. ♀ ad. sk. | Maconjo (<i>J. Anchieta</i>). | Shelley Coll. |
| l. ♂ ad. sk. | Quissangue (<i>J. Anchieta</i>). | Lisbon Mus. [P.] |
| m. ♀ ad. sk. | Capangombe, Benguela (<i>J. A.</i>). | Lisbon Mus. [P.] |
| n. ♂ ad. sk. | Rio Chimba (<i>J. A.</i>). | Shelley Coll. |

8. *Hyphantornis jamesoni*.

Hyphantornis xanthops (*nec Hartl.*), *Shelley, Ibis*, 1882, p. 352; *† Matschie, J. f. O.* 1887, pp. 154, 158, 159.

† *Hyphantornis*, sp., *Böhm, J. f. O.* 1885, p. 61.

† *Hyphantornis aurantius* (*nec V.*), *Böhm, J. f. O.* 1885, p. 70.

† *Ploceus xanthops*, *Dubois, Bull. Mus. R. Belg.* iv. p. 148 (1886).

* Said to have been procured at Sierra Leone, but the species probably never visits West Africa.

Adult male. Similar to *H. xanthops* but greener, and having only the forehead yellow, the ear-coverts being also washed with olive-green like the sides of the neck: "bill black; legs and feet pale brown: iris light tawny yellow" (*J. S. Jameson*). Total length 7·2 inches, culmen 0·8, wing 3·75, tail 2·7, tarsus 1·05.

Adult female. Much greener than the male, the wings dark brown with greenish-yellow edgings; the whole tail dingy as in the male and not showing any of the bright yellow edgings to the inner web: "bill horn-colour, the lower mandible lighter; feet dark brown; iris light hazel" (*T. E. Buckley*). Total length 7 inches, culmen 0·75, wing 3·35, tail 2·4, tarsus 1.

Hab. S.E. Africa from Swazi Land to the Makalaka Country and Mashoona Land, and probably extending through Central Eastern Africa to Lake Tanganyika.

- a. ♀ ad. sk. Swazi Land, June 22, 1876 (*T. E. Shelley Coll. Buckley*).
 b-d. ♀ ad. sk. Makalaka Country (*Dr. Bradshaw*). Shelley Coll.
 e. ♂ ad. sk. Umvuli River, Sept. 11 (*J. S. Jameson*). Shelley Coll.
 (Type of species.)

9. *Hyphantornis castaneiceps*. (Plate XIII. fig. 5.)

Ploceus aureoflavus (*nec Smith*), *Shelley, P. Z. S.* 1869, p. 367.

Adult. Similar to *H. aureiflavus* but smaller, darker and more olive-green, and having the crown light chestnut or bay, forming a cap; wings and tail-feathers dingy olive-brown, with a very narrow fringe of yellow along either web. Total length 5·8 inches, culmen 0·65, wing 3, tail 2·15, tarsus 0·85.

Hab. Teita district, E. Africa.

- a. ♂ ad. sk. Taveta. H. C. V. Hunter, Esq. [P.]

10. *Hyphantornis bojeri*. (Plate XIII. fig. 6.)

Xanthophilus aureoflavus (*nec Smith*), *Reichenb. Singv.* p. 84, Taf. xlii. fig. 312 (1801).

Hyphantornis bojeri, *Fischer & Hartmann, Cat. Fum. Mus. Berlin*.

under surface of body bright yellow, including the under wing-coverts and quill-lining: "bill black; feet dark flesh-colour; iris yellowish red" (*G. A. Fischer*). Total length 6 inches, culmen 0·65, wing 2·85, tail 1·8, tarsus 0·85.

A young male, according to Dr. Fischer, had the upper mandible horn-brown, the lower one clear yellowish; feet buff; iris brown.

Hab. East Africa.

| | | |
|------------------------|--|----------------------------|
| <i>a, b.</i> ♂ ad. sk. | Mombasa (<i>Wakefield</i>). | Rev. A. F. Buxton
[P.]. |
| <i>c.</i> ♂ ad. sk. | Mombasa Island, July (<i>Dr. Hildebrandt</i>). | Shelley Coll. |

11. *Hyphantornis princeps*.

Symplectes princeps, *Bp. Consp.* i. p. 439 (1850); *Cass. Proc. Philad. Acad.* 1855, p. 439; *Hartl. Orn. W.-Afr.* p. 134 (1857); *Dohrn, P. Z. S.* 1866, p. 328; *Sharpe, Cat. Afr. B.* p. 60 (1871); *Dubois, Bull. Mus. Roy. Belg.* iv. p. 148 (1886).

Hyphantornis princeps, *Reichenb. Singv.* p. 87 (1861); *Gray, Hand-l. B.* ii. p. 43, no. 6592 (1869).

Ploceus princeps, *Shelley, Ibis*, 1887, p. 24.

Adult male. General colour above bright yellow, very faintly mottled with dusky bases to the feathers of the back and scapulars; lower back, rump, and upper tail-coverts more uniform; wing-coverts and quills blackish, edged with yellow, except on the primaries, which are margined with olive-yellow; tail-feathers ashy brown edged with yellow; crown of head and hind neck as well as the sides of the neck light bay or chestnut; eyebrow, feathers round eye, sides of face, ear-coverts, cheeks, and under surface of body brilliant yellow; chin, sides of the face, and the fore neck and chest slightly washed with chestnut; sides of body and flanks slightly washed with tawny; under wing-coverts and axillaries yellowish white with brighter yellow margins; quills below dusky, yellowish or tawny along the inner edge. Total length 6·8 inches, culmen 0·9, wing 3·4, tail 2, tarsus 1.

Adult female. Duller yellow than the male and having the head like the back, with a yellow eyebrow, followed by a dusky streak from the lores through the eye; no orange or chestnut on the sides of the face or throat, these parts being yellow, which colour extends to the sides of the breast, and becomes isabelline-brown on the lower flanks; thighs pale yellow; lower breast, abdomen, and under tail-coverts white; under wing-coverts and axillaries yellow; quills dusky below, yellow along the inner webs. Total length 7 inches, culmen 0·9, wing 3·4, tail 2·1, tarsus 1.

Hab. West Africa from Lagos to Gaboon and the interior of the Congo State; Prince's Island.

| | | |
|--|--------------------------------------|---------------|
| <i>a.</i> ♂ ad. sk. | Prince's Island. | Purchased. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Prince's Island (<i>A. Dohrn</i>). | Sharpe Coll. |
| <i>d, e.</i> ♂ ♀ ad.; <i>f.</i> ♂ juv. sk. | Prince's Island (<i>A. Dohrn</i>). | Shelley Coll. |

12. *Hyphantornis grandis*.

Ploceus collaris (nec V.), *Fraser, P. Z. S.* 1842, p. 142; *id. Zool. Typ.* pl. 45 (1800); *Allen & Thomps. Exp. Niger*, ii. p. 499 (1848).

Hyphantornis grandis, *Gray, Gen. B.* ii. p. 351 (1849); *Hartl. Orn. Westafr.* pp. 125, 273 (1856); *id. J. f. O.* 1861, p. 175; *Sharpe, P. Z. S.* 1869, p. 564; *Gray, Hand-l. B.* ii. p. 41, no. 6562 (1870); *Souza, Jorn. Lisb.* 1888, p. 157.

Ploceus grandis, *Reichenb. Singo.* p. 83, Taf. xl. fig. 307 (1861); *Reichen. Zool. Jahrb.* i. p. 141 (1886); *Shelley, Ibis*, 1887, p. 35.

Adult male. General colour above olive-yellow, the scapulars like the back, but the lower back, rump, and upper tail-coverts brighter and more golden yellow; lesser wing-coverts like the back, the median and greater coverts blackish, edged with bright yellow, the median series with a broad tip of the latter colour; bastard-wing, primary-coverts, and quills blackish brown, edged with olive-yellow, the innermost secondaries with brighter yellow; tail-feathers dusky brown, washed with olive-yellow on the edges; crown of head black, as well as the sides of face and throat; the nape, hind neck, and sides of neck chestnut, forming a collar, which extends across the fore neck; remainder of under surface of body golden yellow, with a slight wash of chestnut on the sides of the body; under wing-coverts golden yellow; quills below dusky, yellowish along the inner edge. Total length 8 inches, culmen 1.1, wing 4.5, tail 2.6, tarsus 1.15.

Adult female. Different from the male. General colour above brown, washed with olive-yellow; the feathers of the mantle and upper back dusky brown in the centres, with olive-yellow margins; lower back, rump, and upper tail-coverts more uniform ashy brown, slightly washed with olive; lesser wing-coverts ashy brown, washed with olive; median and greater coverts blackish, edged with yellow and white at the ends; remainder of wings and tail-feathers as in the male; crown of head brown, with slightly indicated darker centres; hind neck rather lighter brown, tinged with rufous; sides of face, ear-coverts, and cheeks olive-brown, the latter a little lighter; throat and chest whitish, washed with yellow, inclining to reddish brown on the sides of the neck; breast and abdomen white, as well as the thighs and under tail-coverts. Sides of belly and

13. *Hyphantornis cucullatus*.

- Le Pinçon de Sénégal, *Briss. Orn.* iii. p. 173, pl. 15. fig. 2 (1760).
 Le Cap-more, *Montb. Hist. Nat. Ois.* iii. p. 223 (1775).
 Troupiale du Sénégal, *Daubent. Pl. Enl.* iii. pls. 375, 376.
Oriolus cucullatus, *P. L. S. Müll. Syst. Nat. Suppl.* p. 87 (1776);
Cass. Proc. Philad. Acad. 1804, p. 242.
 Weever Oriole, *Lath. Gen. Syn.* ii. pt. ii. p. 435 (1782).
Oriolus textor, *Gm. Syst. Nat.* i. p. 390 (1788).
Ploceus textor, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 128 (1819);
Swains. B. W. Afr. i. p. 167 (1837); *Gordon, Contr. Orn.* 1849,
 p. 9; *Reichenb. Singv.* p. 79, Taf. xxxviii. figs. 292, 294 (1861).
Fringilla velata, pt. (*nec V.*), *Licht. Verz. Doubl.* p. 23 (1823).
Fringilla longirostris, *Vieill. Enc. Méth.* iii. p. 591 (1823).
Ploceus senegalensis, *Shaw, Gen. Zool.* xiv. p. 34 (1826); *Swains.*
Zool. Ill. n. s. pl. 37.
Ploceus modestus, *Hartl. Rev. Zool.* 1845, p. 406.
Hyphantornis textor, *Gray, Gen. B.* ii. p. 351 (1849); *Cab. Mus.*
Hein. Th. i. p. 181 (1850); *Hartl. Orn. W.-Afr.* p. 124 (1856);
Cass. Proc. Philad. Acad. 1850, p. 133; *Hartl. J. f. O.* 1861,
 p. 175; *Sharpe, Ibis*, 1869, p. 191; *id. P. Z. S.* 1871, p. 612; *id.*
Cat. Afr. B. p. 59 (1871); *Shelley & Buckley, Ibis*, 1872, p. 289;
Reichen. & Lühder, J. f. O. 1873, p. 214; *Ussher, Ibis*, 1874, p. 68;
Nicholson, P. Z. S. 1878, p. 130; *Oust. Nouv. Arch. Mus.* (2) ii.
Bull. p. 108 (1879); *Forbes, Ibis*, 1883, pp. 506-518; *Shelley, t. c.*
 p. 550; *Büttik. Notes Leyden Mus.* vii. p. 190 (1885), viii. p. 259
 (1886).
Hyphantornis modesta, *Gray, Gen. B.* ii. p. 351 (1849).
Textor melanocephalus (*nec Gm.*), *Bp. Consp.* i. p. 440 (1850).
Hyphantornis magnirostris, *Hartl. Orn. W.-Afr.* p. 127 (*ex Verr.*
MSS.).
Ploceus magnirostris, *Reichenb. Singv.* p. 82 (1861).
Ploceus solitarius, *Pr. Württ. ; Heugl. J. f. O.* 1867, p. 297.
Hyphantornis gambiensis, *Heugl. Orn. N.O.-Afr.* i. p. 552 (1870),
 iv. p. cxxx (1871).
Hyphantornis cucullata, *Gray, Hand-l. B.* ii. p. 40, no. 6557 (1870).
Hyphantornis cincta (*nec Cass.*), *Sharpe, Ibis*, 1872, p. 72.
Ploceus cucullatus, *Reichen. Zool. Jahrb.* i. p. 133 (1886); *Büttik.*
Notes Leyden Mus. viii. p. 259 (1886); *Shelley, Ibis*, 1887, p. 36;
Büttik. Notes Leyden Mus. x. p. 88 (1888), xi. p. 134 (1889).

Adult male. General colour above golden yellow on the mantle, with a broad black band down each side of the latter, which unites across the lower back; scapulars yellow, with black bases; rump and upper tail-coverts golden yellow, the long ones blackish with olive-yellow ends; lesser wing-coverts black; median coverts golden yellow, with black bases; greater coverts black, edged with yellow, more broadly at the ends; bastard-wing, primary-coverts, and quills black, margined with yellow, more broadly on the inner secondaries; tail-feathers brown, washed with olive, margined with olive-yellow externally and with pale yellow on the inner web; crown of head black; hind neck and sides of neck deep chestnut, forming a collar; sides of face, ear-coverts, cheeks, and throat black, which descends to a point on the lower throat, and is surrounded by deep chestnut on the latter and on the fore neck; remainder of under surface of

body bright orange-yellow, with a slight chestnut wash on the sides of the body; abdomen, lower flanks, thighs, under tail-coverts, and under wing-coverts bright yellow, mottled with blackish bases near the outside of the wing; quills below dusky, broadly edged with yellow along the inner edge: "bill blackish horn-colour; feet flesh-colour; iris orange" (*W. A. Forbes*). Total length 6 inches, culmen 0.85, wing 3.35, tail 1.8, tarsus 1.

Adult female. Different from the male. General colour above ashy brown, with darker brown centres to the feathers of the mantle; scapulars like the back; lower back and rump more uniform ashy brown; under tail-coverts olive-yellow; wing-coverts brown, edged with olive-yellow; the median and greater coverts margined and tipped with pale yellow or yellowish white; remainder of wings and tail as in the male, but not so brightly edged with yellow; crown of head, nape, and hind neck olive-yellow, with a sulphur-yellow streak from the base of the nostrils above the eye; feathers round eye, sides of face, ear-coverts, cheeks, and throat sulphur-yellow; throat, breast, and abdomen white, with here and there a tinge of yellow; sides of body and flanks earthy brown, slightly washed with olive; thighs yellow; under tail-coverts white, the longer ones isabelline brown, with a yellow tinge; under wing-coverts, axillaries, and quill-lining bright yellow. Total length 5.5 inches, culmen 0.8, wing 3.1, tail 1.6, tarsus 0.9.

The adult male seems to adopt a winter plumage exactly like the breeding-plumage of the old female, excepting that the thighs are not so yellow, and the full breeding-dress is gained by a direct moult. Exact information as to the changes of plumage undergone by the present species is wanting. I have described a pair of birds procured by Mr. T. E. Buckley at Abouri on the 26th of February, and several birds in moult are in the collection. Mr. Forbes obtained two specimens on the Niger, one of which he has himself marked "juv.," and I describe them as the young of the present species.

Young. Like the old female, but washed with yellow on the whole of the upper surface, so that the brown of the back loses its contrast with the olive-yellow of the head; the sides of the face are as in the adult female, but the cheeks and throat are bright yellow,

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|---------------------------------------|--------------------------------------|---|
| <i>a.</i> ♂ ad.; <i>b.</i> Imm. sk. | West Africa. | Sir A. Smith. |
| <i>c.</i> ♂ ad. sk. | R. Gambia. | Sir A. Moloney [P.]. |
| <i>d, e, f, g.</i> ♂ ♀ ad. sk. | R. Gambia. | Sharpe Coll. |
| <i>h, i.</i> ♂ imm. sk. | R. Gambia. | Forbes Coll. |
| <i>k, l.</i> ♀ ad. sk. | Rufisque (<i>L. Laglaize</i>). | Tweeddale Coll. |
| <i>m, n.</i> ♂ ad. sk. | Sierra Leone. | Tweeddale Coll. |
| <i>o, p.</i> ♂ ad. et imm. sk. | Ashantee. | Gould Coll. |
| <i>q.</i> ♀ ad. sk. | Wasa Province, Gold Coast. | Sir R. Burton & Capt. Cameron [P.]. |
| <i>r.</i> ♂ ad. sk. | Elmina (<i>Nagtglas</i>). | Salvin-Godman Coll. |
| <i>s, t.</i> ♂ ad. et imm. sk. | Cape Coast. | L. Fraser [C.]. |
| <i>u, v.</i> ♂ ♀ imm. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll.
[<i>H. cincta</i> , l. c.] |
| <i>w, x.</i> ♂ ad. et imm. sk. | Cape Coast. | Shelley Coll. |
| <i>y.</i> Juv. sk. | Accra (<i>T. Haynes</i>). | Sharpe Coll. |
| <i>z.</i> ♂; <i>a', b'.</i> ♀ ad. sk. | Aguapim (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>c'-e'.</i> ♂ ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>f'.</i> ♂ ad. sk. | Abeokuta. | F. Nicholson, Esq.
[P.]. |
| <i>g', h'.</i> ♂ ad. st. & sk. | R. Niger. | Mrs. Heywood [P.]. |
| <i>i'.</i> ♂ ad. sk. | R. Niger. | Dr. Baikie [C.]. |
| <i>k'-o'.</i> ♂ ad. et imm. sk. | R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| <i>p', q'.</i> ♂ ♀ ad. sk. | Gaboon. | M. Verreaux. |
| <i>r'.</i> ♀ ad. sk. | R. Ogowé (<i>Marche</i>). | M. Bouvier. |

14. *Hyphantornis abyssinicus*.

- Grosbec d'Abyssinie, *Buff. Hist. Nat. Ois.* iii. p. 470 (1775).
 Abyssinian Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 131 (1783).
Loxia abyssinica, *Gm. Syst. Nat.* i. p. 360 (1788).
Ploceus melanocephalus (pt.), *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 131 (1819).
Ploceus larvatus, *Rüpp. Neue Wirb., Vög.* p. 91, pl. 32. fig. 1 (1835-40); *id. Syst. Uebers.* p. 76 (1845); *Heugl. Syst. Uebers.* p. 138 (1855); *Reichenb. Singv.* p. 81, Taf. xxxix. figs. 298, 299 (1861).
Ploceus flavoviridis, *Rüpp. Syst. Uebers.* pp. 69, 76, pl. 29 (1845=pt. hiem.); *Heugl. Syst. Uebers.* p. 37 (1856).
Hyphantornis larvata, *Gray, Gen. B.* ii. p. 351 (1849); *Blanf. Geol. & Zool. Abyss.* p. 403 (1870).
Hyphantornis flavoviridis, *Gray, Gen. B.* ii. p. 351 (1849); *Brehm, Reis. Habesch*, p. 217 (1863).
Textor larvatus, *Bp. Consp.* i. p. 440 (1850).
Textor flavoviridis, *Heugl. J. f. O.* 1862, p. 26.
Ploceus solitarius, *Pr. Württ.*; *Heugl. J. f. O.* 1867, p. 297.
Hyphantornis abyssinicus, *Finsch, Tr. Z. S.* vii. p. 261 (1870); *Gray, Hand-l. B.* ii. p. 41, no. 6576 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 388 (1870); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 90 (1881); *Pelz. Verh. z.-b. Ges. Wien*, xxxi. p. 612 (1881), xxxii. p. 505 (1882); *Salvad. Ann. Mus. Genov.* (2) i. p. 187 (1884), vi. p. 280 (1888).
Hyphantornis habessinica, *Heugl. Orn. N.O.-Afr.* i. p. 547 (1870), iv. p. cxxix (1871).

Ploceus abyssinicus, *Reichen. Zool. Jahrb.* i. p. 131 (1886); *Dubois, Bull. Mus. R. Belg.* iv. p. 148 (1886); *Shelley, Ibis*, 1887, p. 37; *id. P. Z. S.* 1888, p. 36.

Adult male. Similar to *H. cucullatus*, and, like that species, having a yellow mantle with a broad black band on each side of it, but this band does not meet across the lower back as in *H. cucullatus*, the yellow being continuous from the neck to the rump; the greater coverts edged with white instead of yellow; the under surface resembles that of *H. cucullatus*, but the head is different. The black does not extend much further than the level of the eye, the hinder crown, occiput, and nape being chestnut, the hind neck and sides of neck being bright yellow like the back: "bill black; legs greyish black; iris scarlet" (*W. T. Blanford*): "iris rufous chestnut; feet reddish" (*Von Heuglin*). Total length 6·6 inches, culmen 0·9, wing 3·6, tail 2, tarsus 1.

Adult female. Similar to the female of *H. cucullatus*, but browner on the back and clearer isabelline on the sides of the body; the olive-yellow on the head not so strongly pronounced, and the yellow on the throat and face not so strongly developed.

The skin above described is from a specimen obtained in Senaar in January, and is presumed to be the old female. I have no specimens accurately determined, for those marked "♀" by Messrs. Blanford and Jesse are undoubtedly males, and are moulting into the black-throated adult stage.

The adult male in winter (*Emin Pasha*) closely resembles the adult female described, but has a little more yellow on the breast and abdomen: "bill dusky horn-colour, the mandible paler" (*Von Heuglin*).

A young bird is washed with bright yellow both above and below, and is especially bright on the throat and breast. It closely resembles the young birds of *H. cucullatus* obtained by Mr. Forbes on the Niger.

Hab. N.E. Africa to Equatorial Africa.

| | | |
|--------------|------------|-------------------|
| a. ♂ ad. sk. | Abyssinia. | Sharpe Coll. |
| b. ♂ ad. sk. | Abyssinia. | Forbes Coll. |
| c. ♂ ad. sk. | Abyssinia. | Dr. Reppell [C.]. |

15. *Hyphantornis bohndorffi*.

Ploceus cucullatus (*nec* Müll.), *Dubois, Bull. Mus. R. Belg.* iv. p. 148 (1886).

Ploceus bohndorffi, *Reichen. J. f. O.* 1887, pp. 214, 307.

Adult male. Similar to *H. abyssinicus*, but with the black on the head a little more extended and reaching nearly to the nape: "bill black; feet light brown; iris red" (*F. Bohndorff*). Total length 7 inches, culmen 0·9, wing 3·45, tail 2, tarsus 1·1.

Hab. Upper Congo.

16. *Hyphantornis collaris*.

Ploceus collaris, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 129 (1819); *id. Enc. Méth.* iii. p. 699 (1823).

Hyphantornis collaris, *Gray, Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 126 (1856).

Hyphantornis cincta, *Cass. Proc. Philad. Acad.* 1859, p. 133; *id. Journ. Philad. Acad.* i. p. 184, pl. 23. fig. 2 (1862); *Mont. P. Z. S.* 1865, p. 93; *Gray, Hand-l. B.* ii. p. 41, no. 6566 (1870); *Sharpe, P. Z. S.* 1870, p. 114, 1873, p. 717; *id. & Bouv. Bull. Soc. Zool. France*, i. p. 47 (1876); *Reichen. J. f. O.* 1877, p. 26; *Bocage, Orn. Angola*, p. 323 (1881).

Ploceus cinctus, *Reichenb. Singv.* p. 80 (1861); *Reichen. Zool. Jahrb.* i. p. 136 (1886); *id. J. f. O.* 1887, p. 305; *Shelley, Ibis*, 1887, p. 35.

Hyphantornis gambiensis, *Reichen. Corr. Afrik. Ges.* 1874, p. 181.

Adult male. General colour above yellow, the whole of the mantle and scapulars mottled with black bases to the feathers; the lower back, rump, and upper tail-coverts more uniform, the long coverts being ashy brown, yellow at the ends; lesser wing-coverts greenish yellow; median and greater coverts as well as the inner secondaries black, rather broadly edged with bright yellow; bastard-wing, primary-coverts, and quills blackish, edged narrowly with yellow; tail-feathers olive-brown, margined with olive-yellow; crown of head, nape, and hind neck black; ear-coverts, cheeks, and throat black, descending to a point on the fore neck; sides of fore neck deep chestnut, spreading on to the chest and sides of neck; remainder of under surface of body bright yellow, becoming a little paler on the abdomen, flanks, and under tail-coverts; under wing-coverts pale yellow; quills below dusky, yellowish along the inner edge: "bill black; feet flesh-coloured; iris red" (*J. Anchieta*). Total length 6·5 inches, culmen 0·8, wing 3·35, tail 2·05, tarsus 0·9.

Adult female. Very similar to the female of *H. cucullatus*, greyish brown on the back, strongly mottled with blackish-brown centres to the feathers; the head yellowish green; throat and chest lemon-yellow; breast and abdomen white, with a few yellow feathers; sides of body ashy brown. Total length 6·5 inches, culmen 0·75, wing 3·2, tail 2·3, tarsus 0·9.

Hab. West Africa, from Gaboon to Benguela.

| | | |
|----------------------------------|---------------------------------------|----------------------------|
| a. ♂ ad. sk. | Gaboon (<i>J. Skertchley</i>). | Sharpe Coll. |
| b. ♂ ad. sk. | R. Congo. | Commander Sperling
[P.] |
| c, d, e, f. ♂ ad.
et juv. sk. | Lower Congo (<i>L. Petit</i>). | Shelley Coll. |
| g. ♂ ad. sk. | Benguela. | Monteiro Coll. |
| h. ♂ ad. sk. | Kattenbella, Oct. 30 (<i>Sala</i>). | Sharpe Coll. |

17. *Hyphantornis nigriceps*.

Hyphantornis larvatus (*nec Rüpp.*), *Sch. P. Z. S.* 1864, p. 110; *Kirk, Ibis*, 1864, p. 322.

Hyphantornis nigriceps, *Layard, B. S. Afr.* p. 180 (1867); *Gray, Hand-l. B.* ii. p. 42, no. 6585 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 392 (1870); *Gurney, Ibis*, 1873, p. 255; *Sharpe, P. Z. S.* 1873, p. 715; *Nicholson, P. Z. S.* 1878, p. 358; *Cab. J. f. O.* 1878, p. 231; *Fischer & Reichen. J. f. O.* 1878, p. 262, 1880, p. 143; *Fischer, J. f. O.* 1879, pp. 281, 302; *Bocage, Journ. Lisb.* 1880, p. 143; *id. Orn. Angola*, p. 324 (1881); *Gurney, Ibis*, 1881, p. 127; *Shelley, P. Z. S.* 1881, p. 584; *Sharpe, ed. Layard's B. S. Afr.* p. 436 (1884); *Fischer, Zeitschr. ges. Orn.* i. p. 330 (1884); *id. J. f. O.* 1885, p. 133; *Souza, Journ. Lisb.* 1886, p. 16; *Matschie, J. f. O.* 1887, p. 154.

Hyphantornis cucullatus (*nec P. L. S. Müller*), *Bocage, Journ. Lisb.* 1867, p. 334.

Hyphantornis spinolotus (*nec Vig.*), *Finsch & Hartl. Vög. Ostaf.* p. 393, pt. (1870); *Sharpe, Cat. Afr. B.* p. 59 (1871); *Gurney in Anders. B. Dam.-Ld.* p. 109 (1872).

Ploceus nigriceps, *Reichen. Zool. Jahrb.* i. p. 137 (1886); *Dubois, Bull. Mus. R. Belg.* iv. p. 148 (1886); *Shelley, Ibis*, 1887, p. 35, 1888, p. 302.

Adult male. Similar to *H. collaris* and with the same yellow back, mottled with black bases to the feathers; the black of the head not extending to the hind neck, which is orange-yellow like the sides of the neck and underparts; the black of the throat descends in a point on to the fore neck, but there is no chestnut as in *H. collaris*, the whole of the sides of the fore neck being orange-yellow like the underparts: "bill black; feet and claws horny brown; iris orange" (*G. A. Fischer*). Total length 6.5 inches, culmen 0.8, wing 3.4, tail 2.1, tarsus 0.85.

Adult female. Scarcely distinguishable from the female of

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| <i>g.</i> ♂ ad. sk. | Tangani, Aug. 21. | F. J. Jackson, Esq.
[P.]. |
| <i>h, i, k.</i> ♂ ♀ ad. sk. | Lamo (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>l, m.</i> ♂ ♀ ad. sk. | Melinda (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>n, o.</i> ♂ ad. sk. | Usambara Hills (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>p.</i> ♂; <i>q, r.</i> ♀ ad. sk. | Dar-es-Salaam (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>s, t.</i> ♂ ♀ ad. sk. | Mozambique. | Dr. Gueinzius [C.]. |
| <i>u.</i> ♂ ad. sk. | Zambesi (<i>Chapman</i>). | Sharpe Coll. |
| <i>v.</i> ♀ ad. sk. | Tete, Zambesi (<i>Sir J. Kirk</i>). | Livingstone Exped. |

18. *Hyphantornis melanocephalus*.

The Gamboa Grosbeak, *Albin, Nat. H. B.* iii. p. 58, pl. 62 (1740, fig. pess.).

Le Grosbec de Gambie, *Briss. Orn.* iii. p. 230 (1760).

Loxia melanocephala, *Linn. Syst. Nat.* i. p. 306 (1766); *Gm. Syst. Nat.* i. p. 859 (1788).

Gambia Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 149 (1783).

Coccothraustes melanocephala, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 529 (1817).

Ploceus cucullatus, (*nec Müll.*), *Swains. B. W. Afr.* p. 261 (1837); *id. An. in. Menag.* p. 307 (1837).

Hyphantornis cucullatus, *Gray, Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 125 (1857).

Textor cucullatus, *Bp. Consp.* i. p. 441 (1850).

Hyphantornis sp., *Gray, Hand-l. B.* ii. p. 41, no 6559 (1870).

Ploceus duboisi, *Hartl. Bull. Mus. R. Belg.* iv. p. 144, pl. iv. fig. 1 (1886); *Dubois, t. c.* p. 148; *Shelley, Ibis*, 1887, p. 33.

Ploceus melanocephalus, *Shelley, Ibis*, 1887, p. 33.

Adult male. General colour above uniform olive-yellow, a little brighter on the rump; lesser wing-coverts like the back; median coverts blackish, broadly tipped with bright yellow; greater coverts dusky brown, edged with whity brown; bastard-wing, primary-coverts, and quills blackish brown, edged with olive-yellow, brighter yellow on the primaries and inner secondaries; tail-feathers olive-brown, edged with olive-yellow; crown of head and nape black; sides of neck and hind neck orange-yellow forming a collar; eye or eyelid, sides of face, ear-coverts, cheeks, and throat as well as the centre of the fore neck black; sides of fore neck, chest, and remainder of under surface bright orange-yellow, a little paler towards the abdomen; under wing-coverts and axillaries pale yellow, as also the quill-lining. Total length 5·2 inches, culmen 0·7, wing 3, tail 1·9, tarsus 0·8.

Hab. West Africa from Senegambia to the Niger, and extending into the Upper Congo Region. *P. duboisi* seems to me to be this species, as suspected also by Capt. Shelley.

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| <i>a.</i> ♂ ad. sk. | West Africa. | Sir A. Smith. |
| <i>b.</i> ♂ ad. sk. | Senegambia. | Purchased. |
| <i>c.</i> ♂ ad. sk. | River Gambia (<i>Capt. Moloney</i>). | Shelley Coll. |
| <i>d.</i> ♂ ad. sk. | River Gambia. | Dr. Rendall [C.]. |
| <i>e.</i> ♂ imm. sk. | Shonga, R. Niger (<i>W. A. F.</i>) | Forbes Coll. |

19. *Hyphantornis capitalis*.

- Capital Tanager, *Lath. Gen. Syn. Suppl.* p. 162, pl. 112 (1787).
Tanagra capitalis, *Lath. Ind. Orn.* i. p. 432 (1790).
Fringilla capitalis, *Licht. Verz. Doubl.* p. 23 (1823).
Ploceus capitalis, *Less. Compl. Buff.* viii. p. 308 (1840); *Shelley, Ibis*, 1887, p. 34, pl. ii. fig. 1.
Hyphantornis capitalis, *Gray, Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 124 (1857); *Gray, Hand-l. B.* ii. p. 42, no. 6579 (1870); *Shelley, Ibis*, 1883, p. 550; *Sharpe, ed. Layard's B. S. Afr.* p. 442 (1884)*.
Textor capitalis, *Bp. Consp.* i. p. 441 (1850).
Ploceus cucullatus (*nec Müll.*), *Reichenb. Singu.* p. 79, pl. xxxviii. fig. 291 (1861).

Adult male. Similar to *H. melanocephalus*, but distinguished by the warm orange-chestnut shade which pervades the sides of the fore neck, chest, and breast, contrasting with the golden yellow on the sides of the neck and hind neck, whereas in *H. cucullatus* the breast is of the same colour as the above-mentioned parts: "bill black; feet fleshy; iris brown" (*W. A. Forbes*). Total length 5 inches, culmen 0·6, wing 2·7, tail 1·6, tarsus 0·8.

Adult female. Different from the male. General colour above brown, with darker brown centres to the feathers; lower back, rump, and upper tail-coverts uniform brown, the latter slightly rufescent; wing-coverts and quills dusky brown, edged with olive-yellow, the median coverts and inner secondaries broadly margined with dull whitish, slightly tinged with yellow; tail-feathers brown with olive-yellow margins; crown of head olive-green, as also the sides of the face and sides of neck; a faint eyebrow of pale sulphur-yellow; cheeks also a little brighter sulphur-yellow; throat whitish, washed with yellow, inclining to saffron-yellow on the fore neck; breast, sides of body, flanks, thighs, and under tail-coverts pale isabel-line brown; lower breast and abdomen white; under wing-coverts and axillaries saffron-yellow; quills below dusky, yellow along the inner edge: "bill blackish, the base of the mandible horny; feet greyish fleshy; iris pearly" (*W. A. Forbes*). Total length 5·2 inches, culmen 0·55, wing 2·65, tail 1·55, tarsus 0·8.

Hab. West Africa, from Senegambia to the Niger.

Adult male. Similar to *H. capitalis*, but rather darker olive-yellow above, causing the yellow collar on the hind neck to stand out in stronger relief; under surface of body also similar to *H. capitalis*, but the black descending much more over the fore neck, and the chestnut colour much more developed, pervading the whole of the breast and sides of the body: "bill black; feet dusky reddish; iris umber-brown" (*Emin Pasha*). Total length 6 inches, culmen 0.7, wing 2.9, tail 1.8, tarsus 0.9.

Adult female. Similar to the female of *H. capitalis*, but rather larger and more distinctly streaked with black centres to the dorsal plumage: "bill dusky horn-colour, the mandible paler; feet reddish; iris pale brown" (*Emin Pasha*). Total length 5.5 inches, culmen 0.65, wing 2.9, tail 1.6, tarsus 0.9.

Hab. Equatorial Africa, from Wadelai to the Victoria Nyanza.

| | | |
|-------------------------------|--|------------------|
| <i>a-h.</i> ♂ ; <i>i-p.</i> ♀ | Wadelai, July, Aug. | Emin Pasha [P.]. |
| ad. sk. | | |
| <i>q.</i> ♂ ad. sk. | Magungo, Dec. 1 (<i>Emin Pasha</i>). | Shelley Coll. |

21. *Hyphantornis dimidiatus*.

Ploceus affinis, *Heugl. Syst. Uebers.* p. 37 (1856, descr. nullâ).

Textor rubiginosus (*nec Rüpp.*), *Heugl. J. f. O.* 1862, p. 27.

Hyphantornis dimidiata, *Antin. & Salvad. Viagg. Bogos*, p. 120, pl. 111 (1873); *Fischer, Zeitschr. ges. Orn.* i. p. 331 (1884); *id. J. f. O.* 1885, p. 133.

Ploceus dimidiatus, *Reichen. Zool. Jahrb.* i. p. 130, pl. v. fig. 3 (1886); *id. J. f. O.* 1887, p. 68; *Shelley, Ibis*, 1887, p. 33.

Ploceus jacksoni, *Shelley, Ibis*, 1888, p. 293, pl. vii.

Adult male. General colour above uniform bright golden yellow from the hind neck to the tail; lesser wing-coverts olive-greenish; median and greater coverts blackish, the former broadly tipped, the latter narrowly edged with yellow; bastard-wing, primary-coverts, and quills blackish, edged with bright yellow, the inner secondaries more broadly; tail-feathers olive-brown, narrowly edged with olive-yellow externally, broadly margined with pale yellow on the inner web; entire head and hind neck, sides of face and throat black, descending to a point on the fore neck; all the sides of the neck and fore neck, breast, and sides of body deep chestnut; abdomen, lower flanks, thighs, and under tail-coverts bright yellow, the latter washed with chestnut; axillaries and under wing-coverts bright yellow; quills dusky below, yellow along the inner webs: "bill black; feet reddish brown; iris light orange" (*G. A. Fischer*). Total length 5.4 inches, culmen 0.55, wing 3.85, tail 1.7, tarsus 0.5.

Hab. From Kassala in N.E. Africa to the Victoria Nyanza, and Kilimanjaro district to Manda Island.

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|---------------------|---------------|--------------------------------|
| <i>a.</i> ♂ ad. sk. | Manda Island. | F. J. Jackson, Esq. [P.]. |
| | | (Type of <i>P. jacksoni</i> .) |

22. *Hyphantornis badius*.

Hyphantornis badius, Cass. *Proc. Philad. Acad.* 1850, p. 57; *Finsch, J. f. O.* 1868, p. 108; *Heugl. Orn. N.O.-Afr.* i. p. 553 (1870); *Gray, Hand-l. B.* ii. p. 43, no. 6601 (1870).

Ploceus rufocitrinus, Müll. *Naum.* 1851, Heft iv. p. 28.

Ploceus mordoreus, Less. MSS.; *Bp. Rev. et Mag. Zool.* 1855, p. 76.

Ploceus badius, *Reichenb. Singv.* p. 83, Taf. xli. figs. 309, 310 (1861);

Reichen. Zool. Jahrb. i. p. 129 (1886); *Shelley, Ibis*, 1887, p. 34.

Textor castaneoauratus, Antin. *Cat. descr. Ucc.* p. 62 (1864); *Salvad.*

Atti R. Accad. Torino, v. p. 740 (1870).

Hyphantornis axillaris, *Heugl. J. f. O.* 1867, p. 381.

Ploceus melanocephalus (nec L.), *Pr. Württ., Heugl. J. f. O.* 1867, p. 298.

Ploceus, sp., *Heugl. J. f. O.* 1867, p. 98.

Adult male. Head, nape, face, and sides of fore neck shining black; hinder neck, scapulars, back, rump, sides of neck, breast, upper abdomen, and flanks chestnut on an orange ground; remainder of abdomen and under wing-coverts orange-yellow, the former somewhat washed with chestnut; lesser wing-coverts olive-brown, broadly and conspicuously margined with greenish yellow; greater wing-coverts and inner secondaries yellow, tinged with chestnut, black in the centre; wing-coverts of the second order more chestnut, yellow at the base, with an obsolete blackish spot on the inner web; quills dusky brown, internally broadly, externally narrowly edged with yellow; tail-feathers pale olivaceous brown, edged with bright yellow, pale yellowish below; bill black; feet reddish. Total length 5·5 inches, culmen 0·7–0·75, wing 2·95–3·05, tail 1·8, tarsus 0·85–0·9. (*Von Heuglin*).

Hab. N.E. Africa.

23. *Hyphantornis intermedia*.*

Ploceus intermedius, Rüpp. *Syst. Uebers.* pp. 71, 76 (1845); *Heugl. Syst. Uebers.* p. 38 (1856); *Reichen. Zool. Jahrb.* i. p. 145 (1886, pt.); *Shelley, Ibis*, 1887, p. 32 (pt.); † *Reichen. J. f. O.* 1887, p. 69.

† *Ploceus erythrophthalmus*, *Heugl. Syst. Uebers.* p. 38 (1856).

Hyphantornis intermedia, *Gray, Gen. B.* ii. p. 351 (1849); *Heugl. Orn. N.O.-Afr.* i. p. 550, tab. xviii fig. a (1870); *Gray, Hand-l.*

edged with olive-yellow, paler on the inner secondaries, which are like the greater coverts; centre tail-feathers olive-brown, dusky towards the ends, edged with olive-yellow; remainder brown, edged with olive-yellow, paler on the inner web; forehead and vertex black, the line being drawn a little behind the eyes, the black occupying the whole of the ear-coverts, cheeks, and throat, and coming to a point on the lower throat; the hinder crown chestnut, ending off with deep orange on the nape and hind neck; sides of neck bright yellow; sides of lower throat, fore neck, and chest distinctly orange; remainder of under surface of body bright yellow, with a slight wash of orange along the sides of body; flanks, thighs, and under tail-coverts whitish; under wing-coverts yellow; quills below dusky, whitish along the inner edge. Total length 5·4 inches, culmen 0·55, wing 2·8, tail 1·8, tarsus 0·85.

Hab. Shoa, perhaps extending to the Victoria Nyanza.

a. ♂ ad. sk. Shoa (*Sir W. C. Harris*). India Museum.
(Type of species.)

24. *Hyphantornis cabanisi*.

Hyphantornis capitalis (*nec Lath.*), *Licht. Nomencl. Av.* p. 50 (1854).

Hyphantornis mariquensis (*nec Smith*), *Licht. t. c.* p. 50 (1854).

Ploceus capitalis (*nec Lath.*), *Reichenb. Singv.* p. 77, Taf. xxxvii. fig. 276 (1861, pt.).

Hyphantornis cabanisi, *Peters, J. f. O.* 1868, p. 133; *Gray, Hand-l. B.* ii. p. 42, no. 6584 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 390 (1873); *Fischer, Zeitschr. ges. Orn.* i. p. 331 (1884); *id. J. f. O.* 1885, p. 133.

Hyphantornis nigrifrons (*nec Cab.*), *Buckley, Ibis*, 1874, p. 380; *Sharpe in Oates' Matabele-Land*, p. 319 (1881); *Shelley, P. Z. S.* 1881, p. 584; ? *Holub & Von Pelz. Beitr. Orn. Südaf.* p. 116 (1882); *Sharpe, ed. Layard's B. S. Afr.* p. 326 (1884).

Adult male. Similar to *H. intermedius*, but with the back of the head orange-yellow, not chestnut, with a line of chestnut separating the black frontal patch from the hinder crown: "bill black; feet brown; iris yellowish white" (*T. E. Buckley*). Total length 5·9 inches, culmen 0·65, wing 2·8, tail 1·9, tarsus 0·85.

Adult female. Different from the male. Olive-yellow, with dusky centres to the feathers of the back; lower back, rump, and upper tail-coverts clearer and uniform olive-yellow; wings and tail as in the male; head olive-greenish, with a bright yellow eyebrow; lores and sides of face bright yellow; throat white with a yellow tinge; fore neck washed with saffron-yellow; lower breast and abdomen white; thighs ashy; under tail-coverts white with a yellow tinge; under wing-coverts isabelline with a yellow tinge. Total length 4·6 inches, culmen 0·6, wing 2·7, tail 1·65, tarsus 0·75.

The *adult male in winter plumage* probably resembles the adult female, to judge from specimens in full moult in the Museum.

Young males, as I determine them, are like the old females, but brighter yellow above, especially on the head, and underneath they are bright yellow inclining to orange on the chest.

Hab. Eastern Africa from the Zanzibar region to Matabele-Land and Natal, extending to Damara-Land.

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|------------------------------|--|-------------------------------------|
| a. ♀ ad. sk. | Lamu. | F. J. Jackson, Esq.
[P.]. |
| b. ♂ imm. sk. | Lamo (Sir J. Kirk). | Shelley Coll. |
| c. ♂ ad. sk. | Pangani River (Sir J. Kirk). | Shelley Coll. |
| d-h. ♂ ad. et imm.; | Matabele-Land, Sept. 20, | Shelley Coll. |
| i. ♀ ad. sk. | 1878 (T. E. Buckley). | |
| k. ♂ imm. sk. | Tati, Oct. 21 (F. Oates). | W. E. & C. G. Oates,
Esqs. [P.]. |
| l. ♀ ad. sk. | Durban, Natal (T. L. Ayres). | Shelley Coll. |
| m. ♂ ad. sk. | Omaruru, Damara-Land,
Feb. 11 (A. Erikson). | Shelley Coll. |
| n, o. ♀ ad. et ♂
juv. sk. | Swakop River, June, Dec.
(C. J. Andersson). | Sharpe Coll. |

25. *Hyphantornis vitellinus*.

Fringilla vitellina, Licht. *Verz. Doubl.* p. 23 (1823).

Ploceus ruficeps, Swains. *B. W. Afr.* ii. p. 262 (1837); *id.* *An. in Menag.* p. 308 (1837); *Gray, Gen. B.* ii. p. 353 (1849).

Hyphantornis vitellina, Gray, *Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 124 (1857); *Finsch, J. f. O.* 1868, p. 168; *Heugl. t. c.* p. 168; *id.* *Orn. N.O.-Afr.* Taf. xviii. fig. C (1870), iv. p. cxxx (1871); *Gray, Hand-l. B.* ii. p. 42, no. 6582 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 305 (1870, pt.); *Sharpe, Ibis*, 1872, p. 71; *Shelley & Buckley, t. c.* p. 280; *Hartl. Abhandl. nat. Ver. Bremen*, viii. p. 200 (1882).

Textor vitellina, Bp. *Consp.* i. p. 441 (1850).

Ploceus sublarvatus, Müll. *Naum.* 1851, Heft iv. p. 28; *id.* *Descr. Ois. d'Afr.* pl. 12 (1854).

Textor galbula (nec Rüpp.), *Vierth. Naum.* 1853, p. 21; *Antin. Cat. descr. Ucc.* p. 63 (1864); *Salvad. Atti R. Accad. Torin.* v. p. 740 (1870).

Ploceolus sublarvatus, Reichenb. *Singv.* p. 77, Taf. xxxvi. figs. 279, 280 (1861).

Ploceolus vitellinus, Reichenb. *t. c.* p. 78, Taf. xxxvii. figs. 281, 285

coverts with brighter yellow margins, inclining to whitish on the edges; bastard-wing, primary-coverts, and quills dusky blackish, edged with yellow, the innermost secondaries rather whiter on their margins; tail-feathers pale olive-brown, edged with yellow externally and with pale yellow along the inner web; crown of head chestnut as far as the middle, gradually fading off into golden yellow on the hinder crown and nape; feathers above the lores, the lores themselves, feathers round eye, as well as a patch formed by the sides of face, fore part of ear-coverts, and fore part of cheeks black; remainder of ear-coverts and cheeks as well as the sides of the neck and under surface of body golden yellow; chin and upper throat black, this colour not extending to the end of the rami of the jaws; the lower throat and fore neck tinged with rich orange; under wing-coverts and axillaries yellow; quills below dusky, yellowish along the inner edge: "bill black; feet reddish; iris pale brown" (*Von Heuglin*). Total length 5·2 inches, culmen 0·6, wing 2·9, tail 1·75, tarsus 0·8.

Adult female. Pale brown washed with yellow, and rather broadly streaked with pale brown centres to the feathers; the rump and upper tail-coverts olive-yellow; lesser wing-coverts like the back; median and greater coverts dusky brown, with broad yellowish-white edges, like the innermost secondaries; bastard-wing, primary-coverts, and quills dusky brown, edged with yellow; tail-feathers olive-brown, with yellowish margins to both the inner and outer webs; crown of head uniform ashy brown washed with olive-yellow; a faint eyebrow and the feathers below the eye pale yellowish; ear-coverts light brown, washed with yellow; throat and chest light yellowish or yellowish buff; remainder of breast and abdomen isabelline white. Total length 4·6 inches, culmen 0·6, wing 2·6, tail 1·6, tarsus 0·7.

Hab. Senegambia and North-east Africa to the Equatorial region.

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|-------------------|---|-----------------------|
| a. ♂ ad. sk. | West Africa. | Shelley Coll. |
| b. ♂ ad. sk. | Senegambia. | Sharpe Coll. |
| c. ♂ ad. sk. | [Senegambia.] | Sir A. Smith. |
| d. ♂ ad. sk. | Accra (<i>H. T. Ussher</i>). | Sharpe Coll. |
| e, f. ♂ ♀ ad. sk. | Accra, Feb., April (<i>J. Smith</i>). | Shelley Coll. |
| g, h. ♂ ♀ ad. sk. | Accra, Feb. (<i>T. E. Buckley</i>). | Shelley Coll. |
| i. ♂ ad. sk. | Abyssinia. | Sharpe Coll. |
| k. ♂ ad. sk. | Senaar (<i>Hedenborg</i>). | Shelley Coll. |
| l. ♂ imm. sk. | Upper Nile. | F. Galton, Esq. [P.]. |
| m. ♂ ad. sk. | Wadelai, Oct. 7. | Emin Pasha [P.]. |

Subsp. a. *Hyphantornis reichardi*.

Ploceus reichardi, *Reichen. Zool. Jahrb.* i. p. 148 (1880).

Hyphantornis vitellinus (*nec Licht.*), *Fischer, Zeitachr. ges. Orn.* i. p. 331 (1884); *id. J. f. O.* 1885, p. 133; *Böhm, t. c.* p. 70.

Ploceus vitellinus (*nec Licht.*), *Dubois, Bull. Mus. R. Belg.* iv. p. 148 (1846).

Hyphantornis reichardi, *Matschie, J. f. O.* 1887, p. 150.

Closely allied to *H. vitellinus*, but differing chiefly in the reddish-

brown chest, and in the strong tinge of reddish brown on the under surface (*Reichenow*): "bill black; feet brownish flesh-colour; iris orange" (*G. R. Fischer*).

Hab. Tanganyika district to the Kilimanjaro district.

26. *Hyphantornis shelleyi*.

Hyphantornis vitellina (*nec Licht.*), *Sharpe*, ed. *Layard's B. S. Afr.* p. 439 (1884).

Adult male. Similar to *H. vitellinus*, but with rather distinct blackish shafts on the back; forehead orange, not chestnut; the black on the throat more extended, and reaching quite to the end of the rami of the jaw; chest scarcely tinged with orange. Total length 5.5 inches, culmen 0.65, wing 3, tail 1.8, tarsus 0.85.

Adult female. Similar to the female of *H. vitellinus*, but with the back more distinctly streaked with dusky black. Total length 4.7 inches, culmen 0.6, wing 2.6, tail 1.7, tarsus 0.85.

Young males or, it may be, males in winter plumage have the entire under surface yellow like the throat, instead of the abdomen white.

Hab. Zambesi region south to Swaziland, and westwards to Damara-Land.

| | | |
|--|--|-------------------|
| <i>a, b.</i> ♂, <i>c.</i> ♀ ad.; <i>d.</i> | Tete, Zambesi. | Sir J. Kirk [C.]. |
| <i>e, f.</i> ♂ juv. sk. | | |
| <i>g, h.</i> ♂, <i>i.</i> ♀ ad. sk. | Swaziland, July (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>k, l.</i> ♂ ♀ ad. sk. | Damara-Land, Jan., Feb. (<i>C. J. Anderson</i>). | Sharpe Coll. |
| <i>m.</i> ♂ ad. sk. | South Africa (<i>Mus. Holm.</i>). | Sharpe Coll. |

27. *Hyphantornis velatus*.

Ploceus velatus, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 132 (1819); *Bonn. et Vieill. Enc. Méth.* iii. p. 701 (1823); *Reichenb. Zool. Jahrb.* i. p. 142 (1886); *Shelley, Ibis*, 1887, p. 38; *Buttik. Notes Leyden Mus.* xi. p. 74 (1888).

Ploceus velatus, *South. Afr. Fauna Centr. Afr.* p. 50 (1836).

in *Oates' Matabele-Land*, p. 319 (1881); *Shelley, Ibis*, 1882, i. 353; *Ayres, Ibis*, 1884, p. 229; *Symonds, Ibis*, 1887, p. 332.

Textor mariquensis, *Bp. Consp. Av.* i. p. 441 (1850).

Hyphantornis nigrifrons, *Cab. Mus. Hein. Th.* i. p. 182 (1850); *Grill, Zool. Anteckn.* p. 22 (1859).

Ploceolus nigrifrons, *Reichenb. Singv.* p. 78, pl. xxxvii. fig. 287 (1861).

Ploceus chloronotus, *Reichenb. t. c.* p. 82, pl. xl. figs. 304, 305 (1861).

Hyphantornis capitalis (*nec Lath.*), *Layard, B. S. Afr.* p. 180 (1867); *id. Ibis*, 1869, p. 369; *Sharpe, Cat. Afr. B.* p. 58 (1871); *Buckley, Ibis*, 1874, p. 379.

Hyphantornis auricapillus, *Layard, B. S. Afr.* p. 183 (1867).

? *Hyphantornis æthiops*, *Heugl. J. f. O.* 1867, p. 380; *id. Orn. N.O.-Afr.* i. p. 451 (1870).

Hyphantornis tahatali, *Layard, Ibis*, 1868, p. 267.

Hyphantornis cabanisi (*nec Peters*), *Sharpe, Cat. Afr. B.* p. 58 (1871).

Hyphantornis vitellinus (*nec Licht.*), *Ayres, Ibis*, 1880, p. 106.

Hyphantornis melanops, *Cab. J. f. O.* 1884, p. 240, pl. iii. fig. 2.

Adult male. General colour above greenish olive-yellow, narrowly streaked with dusky centres to the feathers of the back and scapulars, more distinct on the latter; lower back rather more ashy washed with olive; rump yellow; upper tail-coverts greenish yellow; wing-coverts and quills brown, edged with olive-yellow; tail-feathers olive-brown, edged with yellow, and narrowly fringed with yellow along the inner web; crown of head yellow, becoming orange or chestnut towards the forehead, which is black, as well as the lores; feathers round eye, sides of face, ear-coverts, cheeks, and throat black, narrowing to a point on the fore neck; sides of neck and remainder of under surface of body bright yellow; under wing-coverts ashy whitish, washed with yellow; quills below dusky, pale yellow along the inner edge: "bill black; tarsi and feet pale dusky; iris bright crimson" (*T. Ayres*). Total length 6.2 inches, culmen 0.7, wing 2.3, tail 2.1, tarsus 0.25.

In winter Mr. Ayres says that the iris is light brown, the bill, tarsi, and feet are pale dusky.

Adult female. Different from the male. General colour above brown, somewhat ashy on the back, the whole mantle and back rather thickly and broadly streaked with blackish-brown centres; scapulars like the back; lower back, rump, and upper tail-coverts more uniform ashy brown, the latter washed with olive-yellow; lesser wing-coverts ashy brown, with an olive tinge; median and greater coverts blackish brown, edged with whity brown; bastard-wing, primary-coverts, and quills blackish brown, edged with olive-yellow, the inner secondaries broadly margined with white; centre tail-feathers olive-brown, the remainder dark brown with olive-yellow margins externally, the inner webs narrowly margined with yellowish white; crown of head like the back, but less distinctly mottled with dusky brown centres to the feathers, the head slightly washed with olive; lores dusky; a faint eyebrow of ashy whitish, olive on the hinder part; sides of face and ear-coverts olive-brown; cheeks and throat sulphur-yellow, inclining to saffron on the fore

neck; breast and abdomen isabelline, with a tinge of yellow here and there; sides of body, flanks, and thighs light ashy; under tail-coverts white like the abdomen, with a yellow tinge; under wing-coverts and axillaries pale saffron-yellow, with a dusky patch near the edge of the wing; quills below dusky, yellow along the inner edge: "bill, tarsi, and feet pale dusky; iris light brown" (*T. Ayres*). Total length 6·2 inches, culmen 0·6, wing 3·1, tail 2·1, tarsus 0·85.

Adult male in winter plumage. Very similar to the adult female, but distinguished by its olive-yellow lower back, rump, and upper tail-coverts; the wing-coverts edged with yellow, as well as the inner secondaries, which are yellow like the primaries; there is more yellow on the throat, and the axillaries and under wing-coverts bright yellow. Total length 5·6 inches, culmen 0·6, wing 3, tail 2, tarsus 0·8.

In the more northern parts of South Africa a small bright-coloured race (*H. mariquensis*, Smith, *H. melanops*, Cab.) occurs, which is at first sight quite different in aspect and size from the specimens from the Cape Colony and Natal. There is also much less black on the forehead. When a large series, however, is examined, it is found that many of the Transvaal birds hold an absolutely intermediate position as regards colouring and the extent of black on the forehead, and it is impossible to define these northern and southern races. It is another case of the phenomenon so often met with in South Africa, that the individuals become smaller in size and brighter in plumage as they approach nearer towards the Equator.

Hab. South Africa, as far as Benguela on the west and Matabele-Land on the east. The northern specimens are smaller and brighter.

a. *H. velatus*.

| | | |
|-----------------------|---|---|
| a, b. ♂; c. ♀ ad. sk. | Cape Colony. | Sir A. Smith [C.] |
| d. ♂ juv. sk. | Between the Orange River
and the Tropic. | Sir A. Smith [C.]
(Type of <i>P. tahatali</i> .) |
| e, f. ♂; g. ♀ ad. sk. | Cape Colony (<i>E. L. L.</i> &
<i>C. J. A.</i>). | Sharpe Coll. |
| h. ♂ ad. sk. | Cape Colony. | Shelley Coll. |

β. *H. mariguensis*.

| | | |
|---|---|--|
| <i>a-g.</i> ♂ ad. hiem.
et ♀ ad. sk. | Beyoud Kurrichaine. | Sir A. Smith [C.]
(Types of <i>Ploceus mariguensis</i> .) |
| <i>h.</i> ♂ ad. sk. | Interior of Cape
Colony (<i>Butler</i>). | Shelley Coll. |
| <i>i.</i> [♀ ad.] sk. | Colesberg (<i>A. F. Ortlepp</i>). | Sharpe Coll. |
| <i>k, l.</i> ♂ ♀ hiem. sk. | Rustenburg, Aug. (<i>W. Lucas</i>). | Shelley Coll. |
| <i>m, n.</i> ♂ ♀ ad. sk. | Matabele-Land, Oct.
(<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqs. [P.] |
| <i>o, p.</i> ♂ ad. sk. | Limpopo River, Nov 22
(<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>q, r.</i> ♂ imm.; <i>s-w.</i>
♂ ♀ hiem. sk. | Damara-Land (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>x.</i> ♂ ad. sk. | Ondonga, Ovampo-Land,
Jan. 22 (<i>C. J. A.</i>). | Shelley Coll. |
| <i>y.</i> ♂ ad. sk. | Humbe, Cunene River
(<i>J. Anchieta</i>). | Shelley Coll. |
| <i>z.</i> ♂ ad. sk. | Humbe (<i>J. A.</i>). | Lisbon Museum [P.] |

28. *Hyphantornis tæniopterus*.

Ploceus intermedius (*nec Rüpp.*), *Heugl. Syst. Uebers.* p. 38 (1856);
Heugl. J. f. O. 1862, p. 26, 1867, p. 383.

Ploceus tæniopterus, *Reichenb. Singr.* p. 78, pl. xxxvi. figs. 281, 282
(1861); *Reichen. Zool. Jahrb.* i. p. 151 (1886); *Shelley, Ibis*, 1887,
p. 28.

Hyphantornis tænioptera, *Gray, Hand-l. B.* ii. p. 42, no. 6583 (1870);
Heugl. Orn. N.O.-Afr. i. p. 554, Taf. xviii. fig. *h* (1870), iv. p. cxxx
(1871); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 99 (1881); *Pelz.*
Verh. z.-b. Ges. Wien, xxx. p. 506 (1882).

Hyphantornis atrogularis (*nec Voigt*), *Finsch & Hartl. Vög. Ostaf.*
pp. 394, 395 (1870).

Adult male. Similar to *H. vitellinus*, and with chestnut on the head, but with a narrow band of black across the forehead; the sides of the face and cheeks only black as far as the line of the eye; ear-coverts chestnut where they adjoin the black, becoming afterwards golden yellow like the sides of the neck; the black on the throat produced on the lower throat to the beginning of the fore neck, and everywhere surrounded by chestnut: "bill black; feet reddish; iris reddish dusky" (*Von Heuglin*). Total length 5 inches, culmen 0.65, wing 2.7, tail 1.6, tarsus 0.8.

Young male. Scarcely different from the female of *H. vitellinus*, but more distinctly streaked above. Total length 5.8 inches, culmen 0.65, wing 2.8, tail 1.7, tarsus 0.85.

Hab. White Nile from 10° N. lat. to the Lado district.

| | | |
|--------------------------------|---|-----------------|
| <i>a.</i> ♂ ad. sk. | White Nile (<i>Petherick</i>). | Tweeddale Coll. |
| <i>b, c.</i> ♂ ad. et juv. sk. | Lado, March, May (<i>Emin Pasha</i>). | Shelley Coll. |
| <i>d.</i> ♂ ad. sk. | Bor, July 10 (<i>Emin Pasha</i>). | Shelley Coll. |

29. *Hyphantornis heuglini*.

Textor atrogularis (nec Voigt), *Heugl. J. f. O.* 1864, p. 245.

Hyphantornis atrogularis (nec Voigt), *Heugl. J. f. O.* 1867, p. 387;
id. Orn. N.O.-Afr. i. pt. 2, p. 559, pl. xix. (1870); *Shelley, Ibis*,
1883, p. 550; *Sharpe, Journ. Linn. Soc.* xvii. p. 426 (1884).

Hyphantornis tænioptera (pt.), *Gray, Hand-l. B.* ii. p. 42, no. 6583
(1870).

Ploceus heuglini, *Reichen. Zool. Jahrb.* i. p. 147 (1886); *Hartl. op.*
cit. ii. p. 320 (1887); *Shelley, Ibis*, 1887, p. 30.

Adult male. Similar to *H. tæniopterus* and having the black of the throat brought down to the base of the fore neck, as in that species. The ear-coverts, however, are black, and not chestnut, the hinder ear-coverts being yellow like the sides of the neck. The head is like that of true *H. vitellinus* but has no chestnut, nor is the base of the forehead black: "bill black; feet fleshy; iris buffy white" (*W. A. Forbes*). Total length 5·3 inches, culmen 0·7, wing 2·75, tail 1·7, tarsus 0·8.

Hab. West Africa from the Gambia to the Niger, across to the Niam Niam Country and Equatorial Africa.

| | | |
|--------------|--|--------------------|
| a. ♂ ad. sk. | River Gambia. | Forbes Coll. |
| b. ♂ ad. sk. | Lokoja, River Niger (<i>W. A. F.</i>). | Forbes Coll. |
| c. ♂ ad. sk. | Sassa, Niam Niam Country, Sept. | F. Bohndorff [C.]. |

30. *Hyphantornis spilonotus*.

Ploceus spilonotus, *Vigors, P. Z. S.* 1831, p. 92; *Smith, Ill. Zool. S.*
Afr., Birds, pl. 66. fig. 1 (1841); *Gurney, Ibis*, 1860, p. 312;
Reichen. Zool. Jahrb. i. p. 139 (1886); *Shelley, Ibis*, 1887, p. 20.

Ploceus stictonotus, *Smith, S. Afr. Q. Journ.* 1831, p. 11.

Ploceus flaviceps (nec Cuv.), *Swains. B. W. Afr.* ii. p. 259, pl. 32
(1837).

Hyphantornis spilonota, *Gray, Gen. B.* ii. p. 351 (1849); *Hartl.*
Orn. W.-Afr. p. 125 (1857); *Scl. P. Z. S.* 1860, p. 23; *Layard, B.*
S. Afr. p. 181 (1867); *Gray, Hand-l. B.* ii. p. 40, no. 6558 (1870);
Shelley, Ibis, 1875, p. 79; *Sharpe, ed. Layard's B. S. Afr.* pp. 437,
847 (1884); *Butler, Feilden, & Reid, Zool.* 1882, p. 297.

Ploceus chrysostictos, *Licht. MSS.*; *Bp. Consp.* i. p. 441 (1850).

Textor spilonotus, *Bp. Consp.* i. p. 441 (1850).

Hyphantornis spilonota, *Licht. Nouvel.* p. 50 (1854).

round eye, sides of face, the ear-coverts, cheeks, and throat black, narrowing down into a pointed line on the fore neck and chest; sides of neck, sides of lower throat, and under surface of body brilliant yellow, pale on the under tail-coverts and under wing-coverts; quills below pale brown, yellow along the inner edge: "bill brownish black; feet flesh-coloured, tinted with brown; claws a pale brown-colour; iris deep vermilion red" (*Sir A. Smith*). Total length 6·2 inches, culmen 0·8, wing 3·45, tail 2, tarsus 0·95.

Adult female. Different from the male. Ashy brown above, streaked with dusky-brown centres to the feathers of the back and scapulars; lower back and rump uniform ashy brown; upper tail-coverts and tail pale brown washed with olive-yellow, especially the former; wings as in the male, but with the yellow less bright; head and neck olive-yellow, with dusky centres to the feathers; a distinct eyebrow of pale yellow; sides of face light yellow, olive on the ear-coverts; cheeks and under surface of body pale yellow, whiter on the abdomen and under tail-coverts; lower flanks and thighs light brown tinged with yellow; under wing-coverts pale yellow, with a patch of brown near the edge of the wing; quills dusky brown, yellow along the inner edge. Total length 5·7 inches, culmen 0·8, wing 3·25, tail 1·9, tarsus 0·9.

Young birds are light ashy brown on the under surface, with only the throat and sides of the face yellow; upper surface as in the adult female.

Hab. S.E. Africa.

| | | |
|--|---|-------------------------|
| a. ♀ ad. sk. | S.E. Africa. | Sir A. Smith [C.] |
| b. ♂ ad. sk. | Kingwilliamstown. | Major H. Trevelyan [P.] |
| c, d. ♂ ♀ ad. sk. | Elands' Post (<i>T. C. Atmore</i>). | Sharpe Coll. |
| e. ♂ ad. sk. | Natal. | Forbes Coll. |
| f. ♂ ad. sk. | Natal (<i>J. Wahlberg</i>). | Shelley Coll. |
| g. ♂ ad. sk. | Natal. | Dr. Gueinzus [C.] |
| h, i. ♂ imm. et ♀ ad. sk. | Durban, April. | Shelley Coll. |
| k, l, m. ♂; n, o, p. ♀ ad. et imm. sk. | Pinetown, Feb., March, July, Oct. (<i>T. L. Ayres</i>). | Shelley Coll. |
| q. ♂ ad. sk. | Weenen, Dec. 19 (<i>T. Arnold</i>). | Shelley Coll. |
| r. ♂ ad. sk. | Buffalo River. | Sharpe Coll. |
| s. ♀ ad. sk. | Swazi-Land, July 25 (<i>T. E. Buckley</i>). | Shelley Coll. |

31. *Hyphantornis spekii*.

Hyphantornis baglafecht (*nec V.*), *Blyth, J. A. S. Beng.* xxiv. p. 301 (1856); *Hartl. Orn. W.-Afr.* p. 276 (1857); *Scl. Ibis*, 1860, p. 246; *Gray, Hand-l. B.* ii. p. 41, no. 6565 (1870).

Hyphantornis spekii, *Heugl. in Peterm. Mitth.* 1861, p. 24; *id. Orn. N.O.-Afr.* i. p. 559 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 394 (1870); *Salvad. Ann. Mus. Genov.* (2) i. p. 188 (1884).

Hyphantornis somalensis, *Heugl. J. f. O.* 1867, p. 379.

Hyphantornis somalicus, *Finsch, J. f. O.* 1868, p. 169.

Hyphantornis meloxit, *Antin. MSS., teste Salvad. Ann. Mus. Genov.* (2) i. p. 188 (1884).

Ploceus spekii, *Reichen. Zool. Jahrb.* i. p. 146 (1886); *Shelley, Ibis*, 1887, p. 20.

Adult male. General colour above mottled, the back olive-yellow, with spear-shaped central markings of black; lower back, rump, and upper tail-coverts olive-yellow, with rather brighter yellow tips to the feathers; wing-coverts dusky blackish, edged with yellowish green; median wing-coverts black, broadly tipped with yellow, forming a broad wing-band; greater coverts black, edged with dull yellow; bastard wing and primary coverts blackish, edged with greenish yellow; tail-feathers dusky brown, edged narrowly with olive-yellow; crown of head, nape, and hind neck deep golden yellow, almost orange; a narrow line commencing at the base of the nostrils, passing just over the eye, lores, ear coverts, sides of face, cheeks, and throat black, descending to a point on the centre of the lower throat; remainder of under surface of body bright yellow, gradually deepening to orange-chestnut on the fore neck and sides of the lower throat; flank-feathers with some blackish subterminal spots, not very distinctly indicated; sides of upper breast like the back, olive yellow with black centres, axillaries and under wing-coverts pale tawny buff, with ashy bases and washed with yellow near the edge of the wing, which is bright yellow; quills dusky below, olive-buff along the inner web: "bill black; feet carmine; iris orange-red" (*Antinori*). Total length 5.5 inches, culmen 0.75, wing 3.25, tail 1.9, tarsus 0.9.

Young male. Similar to the female of *H. spilonotus*, but much darker, the dusky markings of the grey back more pronounced; throat and breast yellow (*Coll. P. J. Jackson*).

The *adult female* will doubtless be very similar to the young male described.

Hab. From Shoa to the Somali Country, and south to Ukambani.

a, b. ♂ ad. sk. Dembe and Daimbe, Shoa, April, Shelley Coll.
May (*O. Antinori*).

32. *Hyphantornis superciliosus*. (Plate XIV.)

Hyphantornis superciliosus, *Shelley, Ibis*, 1873, p. 140; *Reichen. J. f. O.* 1877, p. 27; *Boage, Orn. Angola*, p. 330 (1881); *Shelley, Ibis*, 1883, p. 551.

Plocus superciliosus, *Reichen. Zool. Jahrb. i.* p. 155 (1886); *id. J. f. O.* 1887, p. 300; *Shelley, Ibis*, 1887, p. 27.

Adult [female]. General colour above dull olive-yellow, the feathers with dusky centres; rump and upper tail-coverts browner, the latter streaked with dusky; wings entirely brown, the feathers with whitish brown edges, more distinct on the median and greater coverts; the primaries slightly tinged with olive on their edges; tail-feathers dark brown; crown of head blackish, washed with orange-yellow; the occiput and nape more olive like the back; a broad eyebrow of golden yellow, deepening to orange on the fore part; lores, feathers round eye, sides of face, ear-coverts, and fore part of cheeks black; hinder cheeks and sides of neck golden yellow, as also the hinder part of the ear-coverts; throat black; remainder of under surface of body golden yellow, inclining to orange on the fore neck and lower throat; abdomen whitish; flanks, thighs, and under tail-

coverts pale isabelline-buff; under wing-coverts and axillaries isabelline brown; quills below dusky, whitish along the inner edge. Total length 5 inches, culmen 0·7, wing 2·5, tail 1·6, tarsus 0·75.

Adult male. Differs from the female in having the crown yellow, no yellow eyebrow, and the sides of the face and upper throat black: "upper mandible blackish horny, lower one pale blue-grey; legs dirty flesh-colour; iris brown" (*W. A. Forbes*). Total length 4·5 inches, culmen 0·65, wing 2·45, tail 1·45, tarsus 0·75.

Young birds are browner than the old female and have the head blackish, followed by a broad eyebrow of tawny buff like the sides of the face and underparts; lores and a broad streak through the eye black. Wing 2·5 inches. "Maxilla horn-colour; mandible pale fleshy; feet dirty flesh-colour; iris olive-brown" (*W. A. Forbes*).

Hab. West Africa from the Gold Coast to the Loango Coast, extending to the Upper Congo.

| | | |
|--------------------------------------|--|------------------------------------|
| a. [♀ ad.] sk. | West Africa. | Sharpe Coll.
(Type of species.) |
| b, c. Imm. sk. | Fantee (<i>Aubinn</i>). | Sharpe Coll. |
| d. Imm. sk. | Accra (<i>J. Smith</i>). | Shelley Coll. |
| e. ♂ ad.; f-h. | Shonga, R. Niger, Nov., Dec. | Forbes Coll. |
| ♂ ♀ imm. sk. | (<i>W. A. F.</i>). | |
| i. ♂ ad.; k, l. ♀
ad. et juv. sk. | Landana, R. Congo (<i>L. Petit</i>). | Shelley Coll. |

52. CINNAMOPTERYX.

Type.

Cinnamopteryx, *Reichen. Zool. Jahrb.* i. p. 126 (1886). *C. castaneofusca*.

Range. Confined to Africa.

Key to the Species.

- a. Abdomen chestnut; head and throat black.
 - a'. No light edgings to the wing-coverts and quills, which are entirely black.
 - a''. Mantle yellow; remainder of back black; throat only black *tricolor* ♂, p. 471.
 - b''. Mantle chestnut like the remainder of the back; throat and breast black [p. 472. *castaneofusca* ♂,
 - b'. Wing-coverts and quills edged with whitish; back entirely chestnut, as well as the under tail-coverts *rubiginosa* ♂, p. 473.

1. *Cinnamopteryx tricolor*.

Ploceus collaris (*nec V.*), *J. E. Gray, Zool. Misc.* i. p. 6 (1831).

Hyphantornis tricolor, *Hartl. J. f. O.* 1854, p. 110; *id. Orn. W.-Afr.* p. 126 (1857); *Gray, Hand-l. B.* ii. p. 41, no. 6567 (1870); *Shelley & Buckley, Ibis*, 1872, p. 202; *Büttik. Notes Leyden Mus.* vii. p. 193 (1885).

Ploceus tricolor, *Reichenb. Singv.* p. 81 (1861); *Reichen. Zool. Jahrb.* i. p. 128 (1886); *Shelley, Ibis*, 1887, p. 38; *Büttik. Notes Leyden Mus.* x. p. 88 (1888), xi. p. 134 (1889).

? *Hyphantornis fuscocastanea*, *Bocage, Jorn. Lisb.* 1880, no. 29; *id. Orn. Angola*, p. 558 (1881).

Adult male. General colour above black with a slight gloss; quills and tail black; mantle golden yellow; entire head and throat black; remainder of under surface from the lower throat downwards rich chestnut; sides of body, flanks, thighs, and under tail-coverts black, the latter edged with chestnut; axillaries and under wing-coverts black; quills blackish below, ashy whitish along the inner web: "bill black; feet greyish brown; iris brown" (*J. Büttikofer*). Total length 6·3 inches, culmen 0·8, wing 3·5, tail 1·8, tarsus 0·85.

Adult female. Similar to the male in colour (*J. Büttikofer*).

A young bird has the head dusky brown mixed with black; the throat dusky reddish brown with a tinge of chestnut; the breast not so bright a chestnut as in the adult.

Hab. West Africa from Sierra Leone to the Loango Coast.

| | | |
|----------------------|---|--|
| u. Ad. sk. | West Africa. | Sir E. Sabine [P.]
(Type of <i>P. collaris</i> .) |
| b. ♂ ad. sk. | Fantee. | Sharpe Coll. |
| c. ♂ juv. sk. | Fantee. | S. D. Aubinn [C.] |
| d. ♂ ad. sk. | Fantee. | A. Swanzy, Esq. [P.] |
| e. Ad. sk. | Fantee. | Shelley Coll. |
| f-h. Ad. et juv. sk. | Aguapim, Feb. (<i>T. E. Buckley</i>). | Shelley Coll. |

2. *Cinnamopteryx castaneofusca*.

Ploceus castaneofuscus, *Less. Rev. Zool.* 1840, p. 90; *Reichenb. Singv.* p. 83 (1861); *Reichen. Zool. Jahrb.* i. p. 126 (1886); *Büttik. Notes Leyden Mus.* viii. p. 258 (1886), x. p. 88 (1888), xi. p. 134 (1889); *Shelley, Ibis*, 1887, p. 38.

♀ *Ploceus isabellina*, *Less. Rev. Zool.* 1840, p. 226; *Reichenb. Singv.* p. 83 (1861).

Hyphantornis castaneofusca, *Gray, Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 126 (1857); *id. J. f. O.* 1861, p. 175; *Sharpe, Ibis*, 1869, p. 191; *Heugl. Orn. N.O.-Afr.* i. p. 501 (1870), iv. p. cxxxi (1871); *Sharpe, Cat. Afr. B.* p. 59 (1871); *Shelley & Buckley, Ibis*, 1872, p. 289; *Reichen. & Lühdor, J. f. O.* 1873, p. 215; *Ussher, Ibis*, 1874, p. 67; *Reichen. J. f. O.* 1875, p. 39; *Sharpe & Bourcier, Bull. Soc. Zool. Fr.* iii. p. 74 (1878); *Oust. Nouv. Arch. Mus.* (2) ii. *Bull.* p. 189 (1879); *Bocage, Orn. Angola*, p. 557; *Forbes, Ibis*, 1883, p. 506; *Shelley, l. c.* p. 552; *Büttik. Notes Leyden Mus.* vii. p. 192 (1885).

black on the mantle, the head slightly more olive; lower back and rump reddish brown, deepening on the tail-coverts; wings blackish, the median and greater coverts margined with whitish brown, a little more olive on the greater series and primaries; tail-feathers brown; lores and sides of face brown with an ochreous wash; under surface of body olive-yellow, the middle of the breast and abdomen sulphur-yellow, the chest, sides of body, thighs, and under tail-coverts tawny buff: "iris brown" (*G. E. Shelley*). Total length 5·5 inches, culmen 0·75, wing 2·95, tail 1·8, tarsus 0·8.

Hab. West Africa from Senegambia to the Congo.

| | | |
|----------------------------------|---|-------------------------------------|
| a. ♂ ad. sk. | Efuenta, Wasa, Gold Coast. | Sir R. Burton & Capt. Cameron [P.]. |
| b. ♂ ad.; c-f. Juv. or ♀ ad. sk. | Ashantee. | Gould Coll. |
| g, h. Juv. sk. | Fantee. | Sharpe Coll. |
| i, k. ♂ ad. sk. | Abrobonko, Cape Coast, Jan. 30 (<i>G. E. S.</i>). | Shelley Coll. |
| l, m, n. ♂ ad. sk. | Abouri, Aguapim, Feb. (<i>G. E. S.</i> & <i>T. E. Buckley</i>). | Shelley Coll. |
| o. ♂ ad. sk. | Accra (<i>Capt. Haynes</i>). | Sharpe Coll. |
| p. ♂ ad. sk. | River Volta (<i>H. T. Ussher</i>). | Sharpe Coll. |
| q. ♂ ad. sk. | Onitscha, R. Niger, Aug. (<i>W. A. F.</i>). | Forbes Coll. |
| r, s. Ad. st. | R. Niger. | Mrs. Heywood. |

3. *Cinnamopteryx rubiginosa*.

Ploceus rubiginosus, Rüpp. *Neue Wirb.* p. 93, pl. 33. fig. 1 (1835-40); *id.* *Syst. Uebers.* p. 76 (1845); *Heugl. Syst. Uebers.* p. 38 (1856); *Reichenb. Singr.* p. 83, Taf. xli. fig. 311 (1861); *Reichen. Zool. Jahrb.* i. p. 128 (1886); *Shelley, Ibis*, 1887, p. 38.

Hyphantornis rubiginosa, Gray, *Gen. B.* ii. p. 351 (1849); *Hartl. Orn. W.-Afr.* p. 127, note (1857); *Heugl. J. f. O.* 1867, p. 383; *id.* *Orn. N.O.-Afr.* i. p. 560 (1870), iv. p. cxxi (1871); *Cub. J. f. O.* 1878, p. 231; *Fischer, J. f. O.* 1885, p. 133.

Textor rubiginosus, Bp. *Consp.* i. p. 442 (1850).

Hyphantornis castaneosoma, Reichen. *Orn. Centralbl.* 1881, p. 70; *id.* *J. f. O.* 1881, p. 334.

Adult male. General colour above uniform light bay or chestnut from the nape to the upper tail-coverts, the latter somewhat paler; scapulars chestnut, with black centres; lesser wing-coverts ashy brown, slightly mottled with black centres; median and greater coverts black, edged and tipped with white or reddish white; bastard-wing, primary-coverts, and quills blackish, edged with whitish brown, the secondaries with broader white margins; tail-feathers brown, with pale olive-brown edges; crown of head black; occiput and nape like the back; lores, feathers round eye, sides of face, ear-coverts, cheeks, and throat black, having a sharply-defined line along the sides of neck, which are rich chestnut like the fore neck and remainder of the under surface of body, becoming paler on the abdomen, sides of body, flanks, and under tail-coverts, the latter with whitish ends; under wing-coverts and axillaries

isabelline white; quills below dusky, ashy along the inner edge: "bill black; feet reddish; iris reddish dusky" (*Heuglen*). Total length 7 inches, culmen 0.75, wing 3.25, tail 2.15, tarsus 0.9.

Adult female. Different from the male. Ochreous brown, with broad black centres to the feathers of the back; lower back, rump, and upper tail-coverts uniform; wing-coverts and quills dusky brown, edged with pale brown or winy brown, the margins very broad on the median coverts, the primaries edged with olive; tail-feathers brown with olive margins; crown of head brown but less distinctly streaked with dark brown; a narrow eyebrow and feathers round the eye yellowish buff; ear-coverts uniform pale brown; throat, lower breast, abdomen, and thighs white; cheeks, fore neck, and breast pale tawny brown; sides of upper breast ashy brown with blackish centres; under wing-coverts and axillaries whitish; quills ashy brown below, whitish along the inner web. Total length 5 inches, culmen 0.7, wing 3.15, tail 1.9, tarsus 0.9.

Hab. Abyssinia to the neighbourhood of Kilimanjaro in East Africa*.

| | | |
|--------------|-------------------------------|-------------------|
| a. ♀ ad. sk. | Abyssinia. | Dr. Rüppell. |
| b. ♀ ad. sk. | Abyssinia. | Sharpe Coll. |
| c. ♂ ad. sk. | Mombasa (<i>Wakefield</i>), | Rev. A. F. Buxton |
| | | [P.] |
| d. ♀ ad. sk. | Useri River. | H. C. V. Hunter, |
| | | Esq. [P.] |

53. PLOCEELLA.

Type.

Ploceella, *Oates in Hume's Nests & Eggs Ind. B.*
p. 443 (1873)

P. javanensis.



Head of *Ploceella javanensis*.

Range. Java; Burmese countries to Siam.

1. *Ploceella javanensis*.

Fringilla philippina, *Horsf. Trans. Linn. Soc.* xiii. p. 160 (1820).

Loxia philippina, *Raffl. Trans. Linn. Soc.* xiii. p. 313 (1820).

Loxia javanensis, *Less. Traité*, p. 446 (1831).

* Three specimens from Damara-Land are apparently females or young males of a Weaver-bird akin to this species, but in all probability not identical with *C. rubiginosa*.

Ploceus philippinus (*nec L.*), *Blyth, J. A. S. Beng.* xiii. p. 945 (1844); *id. Ibis*, 1867, p. 40.

Ploceus hypoxanthus, *Blyth, Cat. B. Mus. As. Soc.* p. 114 (1849); *Bp. Consp. Av.* i. p. 443 (1850); *Cub. Mus. Hein. Th.* i. p. 180 (1850); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 513 (1856); *Gray, Hand-l. B.* ii. p. 44, no. 6613 (1870); *Hume, Nests & Eggs Ind. B.* p. 442 (1873); *id. Str. F.* iii. p. 154 (1875); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 85 (1883); *Reichen. Zool. Jahrb.* i. p. 161 (1886).

Ploceolus hypoxanthus, *Reichenb. Singv.* p. 77, Taf. xxxv. figs. 277, 278 (1861).

Ploceella javanensis, *Oates in Hume's Nests & Eggs Ind. B.* p. 443 (1873); *id. Str. F.* v. p. 160 (1877); *id. ibid.* x. p. 231 (1887); *Hume, Str. F.* viii. p. 107 (1879); *Oates, Handb. B. Brit. Burm.* i. p. 362 (1883).

Ploceus javanensis, *Wald. Tr. Z. S.* ix. p. 210 note (1875); *Blyth & Wald. B. Burm.* p. 91 (1875).

Ploceus chrysæus, *Hume, Str. F.* vi. p. 399, note (1878).

Adult male. General colour above golden yellow, the mantle and upper back mottled with black centres to the feathers; the lower back uniform brown; scapulars like the back; rump and upper tail-coverts uniform golden yellow; wing-coverts brown, the median and greater series edged with whity brown or yellowish; bastard-wing, primary-coverts, and quills dusky brown with olive-yellow margins; tail-feathers dusky brown washed with yellow on the outer web; crown of head golden yellow; hind neck slightly mottled with dusky; lores, feathers round eye, and ear-coverts blackish; fore part of cheeks, chin, and throat black; hinder cheeks, sides of neck, fore neck, and under surface of body golden yellow, including the thighs and under tail-coverts; under wing-coverts and axillaries isabelline, the outer greater coverts dusky; quills below dusky, ashy along the inner edge. Total length 5·4 inches, culmen 0·6, wing 2·65, tail 1·9, tarsus 0·8.

Adult female. General colour above brown, the mantle and upper back with blackish centres and whity-brown edges; scapulars like the back; lower back, rump, and upper tail-coverts uniform reddish brown; lesser wing-coverts brown, slightly washed with olive; median and greater coverts as well as quills brown with whity-brown edges, the light margins to the greater coverts and inner secondaries tinged with olive; tail-feathers brown, edged with whity brown tinged with olive; crown of head like the back but less distinctly streaked, the hind neck with a reddish tinge; a broad eyebrow of orange-yellow; lores, feathers round eye, sides of face, ear-coverts, and cheeks pale tawny buff, which overspreads the chin and throat, sides of neck, fore neck, and breast; abdomen whiter; sides of body, flanks, and thighs light brown washed with tawny; under tail-coverts whitish; under wing-coverts and axillaries isabelline with a slight yellow tinge; quills below dusky, ashy isabelline along the inner edge. Total length 5·5 inches, culmen 0·6, wing 2·7, tail 2·15, tarsus 0·75.

In winter plumage the male resembles the full plumage of the

adult female. The young birds are quite rufescent below, and are also tinged with rufous on the upper surface.

Hab. Java, Burmese countries, and Siam.

| | | |
|--------------------------------------|---|-------------------------------|
| a, b. ♂ ad. sk. | Java (<i>Horasfield</i>). | India Museum. |
| c. ♂ ad. sk. | Java. | Purchased. |
| d. ♂ ad. sk. | Bekassi, Java, Feb. 28 (<i>H. O. Forbes</i>). | Forbes Coll. |
| ♂ ad. sk. | Thatone, Tenasserim, Oct. (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| f. ♀ juv. sk. | Tavoy, April 26 (<i>W. Davison</i>). | Hume Coll. |
| g. ♂ ad. sk. | Lower Pegu. | W. T. Blanford, Esq.
[P.]. |
| h-p. ♂; q-v. ♀
ad. et juv. sk. | Pegu, April to July (<i>E. W. O.</i>). | Oates Coll. |
| w-x. ♂; y, z, a'.
♀ ad. sk. | Pegu, April to Sept. (<i>E. W. O.</i>). | Hume Coll. |
| b'-d' ♂; e'-i'. ♀
ad. et juv. sk. | Pegu, July to Sept. (<i>E. W. O.</i>). | Forbes Coll. |
| k'. Juv. sk. | Burmah. | Pinwill Coll. |
| l'-q'. ♂ ad.;
r', s'. ♀ juv. sk. | Rangoon district, June, July
(<i>R. G. W. R.</i>). | Tweeddale Coll. |
| t'. ♂ ad. sk. | Rangoon. | Hume Coll. |
| u'-x'. ♂; y'-a".
♀ ad. sk. | Tonghoo, June, July (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| b". ♂ ad. sk. | Siam (<i>Sir R. Schomburgk</i>). | Gould Coll. |

54. MELANOPTERYX.

Melanopteryx, *Reichen. Zool. Jahrb.* i. p. 125 (1886).... *M. nigerrima*. Type.

Range. Confined to West Africa.

Key to the Species.

- a. Entirely black above *nigerrima*, p. 476.
b. With a white patch on the hind neck *albinucha*, p. 477.

1. *Melanopteryx nigerrima*.

Ploceus nigerrimus, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 130 (1819); *Reichen Zool. Jahrb.* i. p. 125 (1886); *Hortl. op. cit.* ii.

Adult female. Different from the male. General colour above ochreous-olive, with broad black centres to the feathers of the back and mantle; the lower back, rump, and upper tail-coverts uniform ochreous-olive, the latter with dusky centres; wings black, with light ochreous edges to the wing-coverts and inner secondaries; tail-feathers black, edged with olive; head olive-greenish, slightly varied with dusky centres to the feathers of the nape; eyebrow lighter olive; sides of face dull olive; cheeks and under surface of body olive-yellow, brightest on the throat and abdomen; fore neck, breast, and sides of body olive-brown; thighs and under tail-coverts with a ruddy tinge; under wing-coverts olive; quills dusky below, olive on the inner web. Total length 6·5 inches, culmen 0·9, wing 3·45, tail 2·1, tarsus 0·9.

Hab. West Africa from the Cameroons to the Congo.

| | | |
|--------------------------------------|--|------------------------|
| <i>a, b.</i> ♂ ; <i>c.</i> ♀ ad. sk. | Cameroons Mountains, Jan.,
Feb. (<i>A. Crossley</i>). | Sharpe Coll. |
| <i>d.</i> ♂ ad. sk. | Gaboon. | M. Verreaux. |
| <i>e.</i> ♂ ; <i>f, g.</i> ♀ ad. sk. | Gaboon. | P. B. Du Chaillu [C.]. |
| <i>h.</i> ♂ ad. sk. | R. Ogowé (<i>H. T. Ansell</i>). | Shelley Coll. |
| <i>i.</i> ♂ ad. sk. | R. Congo (<i>Dr. A. Lucan</i>). | Shelley Coll. |

2. *Melanopteryx albinucha*.

Malimbus nigerrimus (*nec V.*), *Sharpe, Ibis*, 1872, p. 72; *Ussher, Ibis*, 1874, p. 68.

Ploceus nigerrimus (*nec V.*), *Büttik. Notes Leyden Mus.* x. p. 88 (1888), xi. p. 134 (1889).

Sycobius albinucha, *Bocage, Journ. Lisb.* 1876, p. 247.

Adult. Black all over like *M. nigerrima*, but with a much smaller bill, and distinguished by having the hind neck and upper mantle mixed with white, so as to form a patch. Total length 5·4 inches, culmen 0·75, wing 3·1, tail 1·7, tarsus 0·7.

Young. Sooty black above with scarcely any white on the neck; bill horn-brown; under surface dark ashy grey, hoary whitish on the throat and cheeks.

Hab. West Africa from Liberia to the Niger.

| | | |
|--------------------------------------|----------------------------------|------------------|
| <i>a.</i> Juv. sk. | West Africa. | Purchased. |
| <i>b.</i> Ad. sk. | Gold Coast. | Forbes Coll. |
| <i>c, d, e.</i> Ad. sk. | Gold Coast. | Shelley Coll. |
| <i>f, g.</i> Ad.; <i>h.</i> Juv. sk. | Denkera (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>i.</i> Ad. sk. | R. Niger. | Dr. Baikie [C.]. |

55. MALIMBUS.

| | |
|---|-----------------------|
| <i>Malimbus</i> , <i>Vieill. Ois. Chant.</i> p. 71, pl. 42 (1805) | Type. |
| <i>Sycobius</i> , <i>Vieill. Analyse</i> , p. 33 (1816) | <i>M. cristatus</i> . |
| <i>Ficophagus</i> , <i>Vieill. (ubi?)</i> , <i>teste Gray</i> , 1849. | <i>M. cristatus</i> . |
| <i>Atalochrous</i> , <i>Elliot, Ibis</i> , 1876, p. 458 | <i>M. racheliae</i> . |

Range. Confined to West Africa.

Key to the Species.

- a. Under tail-coverts black.
- a'. Forehead crimson like the rest of the crown.
 - a''. No crimson on the throat or fore neck; the whole under surface black.
 - a'''. Head and neck crimson *rubricollis* ♂, p. 478.
 - b'''. Head and neck scarlet or vermilion .. *bartletti* ♂, p. 479.
 - b''. Entire throat and chest crimson *malimbicus* ♂, p. 480.
 - c''. Throat black; fore neck and chest crimson *cassini* ♂, p. 482.
 - b'. Forehead with a broad black band; hind head and neck crimson *rubricollis* ♀, p. 479.
 - c'. Forehead black like the rest of the upper surface; bill with more or less shining white *scutatus*, p. 482.
- b. Under tail-coverts scarlet *scutatus*, p. 482.
- c. Under tail-coverts yellow; head scarlet; hind neck yellow; fore neck scarlet; chest yellow *racheha*, p. 483.

1. *Malimbus rubricollis* *.

Tanagra maliubica ♀, Daud. *Ann. du Mus.* i. p. 151, pl. 10. fig. 2 (1802).

Malimbus cristatus ♀, Vieill. *Ois. Chant.* p. 71, pl. 43 (1805).

Ploceus cristatus ♀, Vieill. *N. Dict.* xxxiv. p. 129 (1819).

Fringilla textrix, Licht. *Verz. Doubl.* p. 24, note (1823).

Ploceus rubricollis, Swains. *An. in Menag.* p. 306 (1837).

Euplectes rufovelatus, Fraser, *P. Z. S.* 1842, p. 142; Allen & Thomps. *Exped. Niger*, ii. p. 500 (1848); Fraser, *Zool. Typ.* pl. 46 (1849).

Sycobius rubricollis, Gray, *Gen. B.* ii. p. 352 (1849); Reichenb. *Sing.* p. 90, pl. 61. figs. 332-334 (1861); Bocage, *Orn. Angola*, p. 332 (1881).

Ploceus rufovelatus, Gray, *Gen. B.* ii. p. 353 (1849).

Ploceus textrix, Gray, *t. c.* p. 352 (1849).

Malimbus rubricollis, Strickl. *Contr. Orn.* 1851, p. 133; Elliot, *Ibis*, 1876, p. 461.

Sycobius malimbus, Bp. *Consp.* i. p. 438; Ferr. *Rev. et Mag. de Zool.* 1851, p. 419; Licht. *Nomencl.* p. 50 (1854); Hartl. *Orn. W.-Afr.* p. 133 (1857); Cass. *Proc. Philad. Acad.* 1859, p. 135; Hartl. *J. f. O.* 1861, p. 257.

Textor rufovittatus (?), Eyton, *Cat. Coll.* p. 245 (1856).

Sycobius lachalis, Elliot, *Ibis*, 1879, p. 293.

Adult male. Black, with the head, hind neck, and sides of neck rich scarlet. Total length 7·3 inches, culmen 0·95, wing 4, tail 2·3, tarsus 1.

Adult female. Similar to the male but having a broad frontal band of black: "bill and feet black; iris reddish hazel" (*L. Fraser*). Total length 7 inches, culmen 0·9, wing 4, tail 2·4, tarsus 0·95.

Mr. Edward Bartlett has drawn attention to the difference in the colour of the head between specimens from the Gold Coast and Fernando Po. I find the difference quite constant, and I have named the Gold Coast species after him, as the first discoverer of the characters of these two forms.

Young. Resembles the adult male, but is duller black, and has the red crown dingy vermilion; the black on the sides of the face and chin washed with dull red.

Hab. West Africa from Fernando Po and Gaboon to the Congo. Mr. Bartlett says it ranges to Angola, in spite of Bocage's positive statement that it has never been found south of the Zaire.

| | | |
|-------------------------|------------------------|---|
| a. ♀ ad. sk. | Gaboon. | M. Verreaux. (Type of <i>S. nuchalis</i> .) |
| b. ♂ ad. sk. | Fernando Po. | Lady Isabella Burton [P.] |
| c. Ad. st. | Fernando Po. | Capt. Thomson [P.] |
| d, e. ♀ ad. et juv. sk. | Clarence, Fernando Po. | L. Fraser [C.] |
| | | (Types of <i>E. rufovelatus</i> .) |

2. *Malimbus bartletti*.

Sycobius nuchalis (*nec Elliot*), *Sharpe, Ibis*, 1869, p. 191.

Malimbus textrix (pt.), *Gray, Hand-l. B.* ii. p. 43, no. 6604 (1870).

Malimbus rufovelatus (*nec Fras.*), *Sharpe, Cat. Afr. B.* p. 60 (1871); *Ussher, Ibis*, 1874, p. 68.

Sycobius malimbus (*nec Bp.*), *Reichen. J. f. O.* 1875, p. 38.

Sycobius rubricollis (*nec Sw.*), *Büttik. Notes Leyden Mus.* vii. p. 195 (1885), viii. p. 259 (1886).

Malimbus malimbicus, *Shelley, Ibis*, 1887, p. 40 (pt.); *Büttik. Notes Leyden Mus.* x. p. 90 (1888), xi. p. 133 (1889); *Bartlett, Monogr. Weaver-B.* part iv. pl. i. (1889, pt.).

Adult male. Glossy black above and below, the feathers being black with greenish-black margins; the entire crown, nape, hind neck, and sides of neck crimson, the feathers close-set and bristly: "bill very dark blue; feet dark lead-colour; iris dark brown" (*J. Büttikofer*). Total length 7·5 inches, culmen 0·85, wing 4·15, tail 2·6, tarsus 1.

Adult female. Differs from the male in having the forehead black, leaving the hinder crown and sides of neck crimson. Total length 7 inches, culmen 0·85, wing 4, tail 2·4, tarsus 1.

Young. Much duller black than the adults, and the crimson on the head much duller and the black forehead indicated by a dusky band slightly washed with crimson.

Hab. West Africa from Liberia to the Gold Coast.

| | | |
|------------------------------|---|---------------|
| a. ♂ ad. sk. | Wasa Province, Gold Coast,
March (H. F. Blissett). | Sharpe Coll. |
| b, c. ♂ ♀ ad. et
juv. sk. | Fantee (H. T. Ussher). | Sharpe Coll. |
| d, e, f. ♂; g. ♀
ad. sk. | Fantee (Kirby). | Shelley Coll. |
| h. Ad. sk. | Ashantee. | Gould Coll. |
| i. Ad. sk. | Abouri, Feb. (G. E. S.). | Shelley Coll. |

3. *Malimbus malimbicus*.

Tanagra malimbica ♂ (nec ♀), Daud. *Ann. du Mus.* i. p. 151, pl. 10. fig. 1 (1802) Shaw & Nodd. *Nat. Misc.* pl. 581.

Malimbus cristatus, Vieill. *Ois. Chant.* p. 71, pl. 42 (1805); Gray, *Hand-l. B.* ii. p. 43, no. 6003 (1870); Sharpe, *Cat. Afr. B.* p. 60 (1871); id. *P. Z. S.* 1871, p. 612; Shelley & Buckley, *Ibis*, 1872, p. 289; Ussher, *Ibis*, 1874, p. 68; Elliot, *Ibis*, 1876, p. 459; Sharpe & Bourrier, *Bull. Soc. Zool. France*, iii. p. 74 (1878); Oust. *Nouv. Arch. Mus.* (2) ii. *Bull.* p. 140 (1879); Shelley, *Ibis*, 1887, p. 40; Büttik. *Notes Leyden Mus.* xi. pp. 124, 133 (1889); Bartlett, *Monogr. Weaver-B.* part iv. pl. 11 (1889).

Ploceus cristatus, Vieill. *N. Dict. d'Hist. Nat.* xxxiv. p. 129 (1810); Swains. *An. in Menag.* p. 305 (1837).

Sycobius cristatus, Gray, *Gen. B.* ii. p. 352 (1849); Bp. *Consp.* i. p. 438 (1850); Hartl. *Orn. IV.-Afr.* p. 133 (1857); *Caus. Proc. Philad. Acad.* 1857, p. 369, 1859, p. 135; Hartl. *J. f. O.* 1861, p. 257; Reichenb. *Singv.* p. 90 (1861); Sharpe, *Ibis*, 1869, p. 191; Reichenb. *J. f. O.* 1877, p. 26; Bocage, *Orn. Angola*, p. 331 (1881); Büttik. *Notes Leyden Mus.* vii. p. 195 (1885).

Ficophagus cristatus, Vieill. (ubi?), teste Gray, *Gen. B.* ii. p. 352 (1849).

Sycobius nigrifrons, Hartl. *J. f. O.* 1855, p. 356.

? *Sycobius*, sp., Bocage, *Jorn. Liss.* 1866, p. 140*.

Adult male. Black above and below, with a certain steel-black gloss on the margins of the feathers; head (strongly crested), sides of face, throat, and chest bright crimson; a narrow band across the base of the forehead, lores, feathers round the eye, base of cheeks, and chin black: "bill and feet black; iris brown" (*J. Büttikofer*). Total length 6 inches, culmen 0.8, wing 3.35, tail 2.35, tarsus 0.85.

In the males from the Cameroons there is far less black on the

| | | |
|-----------------------------|---|----------------------|
| <i>a.</i> Ad. sk. | Wasa Province, Gold Coast
(<i>H. F. Blissett</i>). | Shelley Coll. |
| <i>b.</i> Ad. st. | Fantee. | Sir A. Moloney [P.]. |
| <i>c-h.</i> Ad. et juv. sk. | Fantee. | Sharpe Coll. |
| <i>i.</i> Ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| <i>k.</i> Ad. sk. | Fantee. | Tweeddale Coll. |
| <i>l.</i> Ad. sk. | Ashantee. | Gould Coll. |
| <i>m.</i> Ad. sk. | Abouri, Aguapim, Feb. | Shelley Coll. |
| <i>n, o.</i> Ad. sk. | Cameroon Mountains, Feb.
(<i>Crossley</i>). | Sharpe Coll. |

4. *Malimbus nitens*.

Ploceus nitens, Gray, *Zool. Misc.* p. 7 (1831); *Sundev. Æfv. K. Vet.-Akad. Förh. Stockh.* 1849, p. 158.

Sycobius nitens, Gray, *Gen. B.* ii. p. 352, pl. 87. fig. 1 (1849); *Bp. Consp.* i. p. 439 (1850); *Hartl. Orn. Westafr.* p. 133 (1857); *Cass. Proc. Philad. Acad.* 1859, p. 136; *Hartl. J. f. O.* 1861, p. 257; *Reichenb. Singv.* p. 90 (1861); *Sharpe, Ibis*, 1869, p. 192; *Reichen. J. f. O.* 1877, p. 26; *Bocage, Orn. Angola*, p. 558 (1881); *Büttik. Notes Leyden Mus.* vii. p. 196 (1885).

Malimbus nitens, Gray, *Hand-l. B.* ii. p. 43, no. 6606 (1870); *Sharpe, Cat. Afr. B.* p. 60 (1871); *Shelley & Buckley, Ibis*, 1872, p. 289; *Ussher, Ibis*, 1874, p. 68; *Elliot, Ibis*, 1876, p. 463; *Oust. Nouv. Arch. Mus.* (2) ii. p. 154 (1879); *Sharpe, Journ. Linn. Soc.* xvii. p. 426 (1884); *Shelley, Ibis*, 1887, p. 41; *Büttik. Notes Leyden Mus.* x. p. 90 (1888), xi. pp. 124, 133 (1889).

Adult. Black above and below, with a steel-black gloss; lower throat, fore neck, and chest brilliant crimson, forming a large chest-patch: "bill clear bluish grey; feet dark grey; iris carmine" (*A. Reichenow*): "bill and feet bluish horn-colour; iris cherry-brown" (*J. Büttikofer*). Total length 6 inches, culmen 0.85, wing 3.7, tail 2, tarsus 0.85.

There is considerable difference in the amount of black on the chin and throat in the Museum series; but I do not see that there can be more than one species, and I think that the differences are due to the immaturity of the specimens.

Young. Dusky black all over, with a reddish tinge on the throat and breast.

Hab. West Africa from Sierra Leone to the Loango Coast, and extending to Equatorial Africa.

| | | |
|--|--|---|
| <i>a, b.</i> Ad. et juv. sk. | West Africa. | Purchased. |
| <i>c.</i> Ad. sk. | Sierra Leone. | Sir E. Sabine [C.].
(Type of species.) |
| <i>d, e.</i> Ad.; <i>f, g.</i>
Juv. sk. | Fantee (<i>H. T. Ussher</i>). | Sharpe Coll. |
| <i>h.</i> Juv. sk. | Accra (<i>Haynes</i>). | Sharpe Coll. |
| <i>i, k.</i> Ad. sk. | Cameroons, Jan., Feb.
(<i>A. Crossley</i>). | Sharpe Coll. |
| <i>l, m, n.</i> Ad. sk. | Gaboon. | P. B. Du Chaillu [C.]. |
| <i>o.</i> Ad. sk. | Gaboon. | Sharpe Coll. |
| <i>p.</i> Ad. sk. | Niam-Niam Country, Nov. | F. Bohndorff [C.]. |

5. *Malimbus cassini*.

Sycobius cassini, *Elliot, Ibis*, 1859, p. 392; *Cass. Journ. Philad. Acad.* (2) v. p. 186 (1862).

Malimbus cassini, *Gray, Hand-l. B.* ii. p. 43, no. 6008 (1870); *Elliot, Ibis*, 1876, p. 461, pl. 13. fig. 1; *Shelley, Ibis*, 1887, p. 41.

Adult male. Black all over, including the under tail-coverts; but with the head, nape, hind neck, fore neck, and chest scarlet vermilion. Total length 6 inches, culmen 0·8, wing 3·55, tail 2, tarsus 0·8.

Young. Similar to the adult, but dusky and more ashy black; below dark ashy grey, the crimson colour of the head dull and extending over the sides of the face, throat, and chest.

Hab. West Africa from Gaboon to Angola.

| | | |
|-------------|--|---------------------------------|
| a. Ad. sk. | Gaboon. | M. Verreaux. (Type of species.) |
| b. Ad. sk. | Gaboon. | Sharpe Coll. |
| c. Ad. sk. | Fernand Vaz (<i>Marche et De Compiègne</i>). | M. Bouvier. |
| d. Juv. sk. | Loanda (<i>J. Thompson</i>). | Shelley Coll. |

6. *Malimbus scutatus*.

Sycobius scutatus, *Cass. Proc. Philad. Acad.* 1849, p. 157; *id. Journ. Philad. Acad.* i. p. 207, pl. 41. figs. 1, 2 (1850); *Bp. Conspect.* i. p. 439 (1850); *Hartl. Orn. W.-Afr.* p. 132 (1857); *Reichenb. Singv.* p. 90 (1861); *Sharpe, Ibis*, 1869, p. 191, 1870, p. 472; *Büttik. Notes Leyden Mus.* vii. p. 196 (1885), viii. p. 259 (1886), x. p. 90 (1888), xi. pp. 124, 133 (1889).

Malimbus scutatus, *Gray, Hand-l. B.* ii. p. 43, no. 6005 (1870); *Sharpe, Cat. Afr. B.* p. 60 (1871); *Ussher, Ibis*, 1874, p. 68; *Elliot, Ibis*, 1876, p. 460.

Malimbus rubropersonatus, *Shelley, Ibis*, 1887, p. 41, pl. ii. fig. 2.

Adult male. Glossy black above and below; the entire crown, hind neck, and sides of neck scarlet, extending in a broad band across the fore neck and chest; the vent and under tail-coverts also scarlet: "bill black; feet greyish brown; iris dark brown" (*J. Butcher*). Total length 6 inches, culmen 0·65, wing 3·6, tail 2.

and black breast, and may belong to a different species. It has a little tinge of scarlet on the black throat, and otherwise does not seem quite adult, so that the black on the chest may be remains of immaturity: but the nestling from the Gold Coast does not show any trace of black on the chest.

Hab. West Africa from Liberia to Gaboon.

| | | |
|--|---|--|
| <i>a, b.</i> Ad. sk. | [Sierra Leone.] | Tweeddale Coll. |
| <i>c.</i> ♂ ad. sk. | Wasa Province, March (<i>H. F. Blissett</i>). | Shelley Coll. |
| <i>d, e.</i> ♂ ad. sk. | Gold Coast. | Shelley Coll. |
| <i>f.</i> Juv. sk. | Gold Coast. | Forbes Coll. |
| <i>g, h, i.</i> ♂ ad.; <i>k.</i> ♀ ad. sk. | Fantee (<i>H. T. Usher</i>). | Sharpe Coll. |
| <i>l, m.</i> Juv. sk. | Fantee (<i>H. T. Usher</i>). | Sharpe Coll. (Types of <i>M. rubroperonatus</i> .) |
| <i>n, o.</i> ♂ ♀ ad. sk. | Ashantee. | Godfrey Lagden, Esq. [P.]. |
| <i>p.</i> ♂ ad. sk. | Onitscha, R. Niger (<i>W. A. F.</i>). | Forbes Coll. |
| <i>q, r.</i> ♂ ♀ ad. sk. | Cameroons, Feb. 9 (<i>A. Crossley</i>). | Sharpe Coll. |
| <i>s.</i> ♀ ad. sk. | Gaboon. | M. Verreaux. |

7. *Malimbus rachelis*.

Sycobius rachelis, *Cass. Proc. Philad. Acad.* 1857, p. 36; *Hartl. Orn. W.-Afr.* p. 200 (1857); *Cass. Journ. Philad. Acad.* (2) v. p. 185, pl. 23. fig. 3 (1862); *Gray, Hand-l. B.* ii. p. 43, no. 6310 (1870); *Sharpe, Cat. Afr. B.* p. 68 (1871); *Elliot, Ibis*, 1876, p. 464.

Adult. Glossy black above and below, the vent and under tail-coverts being lemon-yellow; head fine scarlet, as well as the lower throat and fore neck; the chest lemon-yellow as well as the sides of the fore neck, the sides of the neck, and a collar round the hind neck. Total length 5·5 inches, culmen 0·7, wing 3 1, tail 2·4, tarsus 0·8.

Hab. Gaboon.

| | | |
|---------------------|---------------------------|--------------|
| <i>a.</i> ♂ ad. sk. | Gaboon (<i>Walker</i>). | Sharpe Coll. |
|---------------------|---------------------------|--------------|

56. NESACANTHIS *.

Foudia, pt., *auct. recent.*

Range. Confined to the Mascarene Islands.

Key to the Species.

- a.* With red on the head.
a'. Head scarlet-vermilion; no black round the eye..... *eminentissima*, p. 484.

* Type *N. eminentissima*.

- b*. Head crimson; feathers round the eye black, extending above the ear-coverts *rubra* *, p. 485.
b. With yellow on the head.
c. Forehead and vertex only yellow; nape and occiput like the back; sides of face and throat ashy brown, washed with yellow .. *seychellarum* *, p. 486.
d. Head entirely yellow, as well as the sides of the face, throat, and chest *sakalava*, p. 487.

1. *Neacanthis eminentissima*.

- Foudia eminentissima*, *Bp. Consp.* i. p. 446 (1850); *Reichenb. Singv.* p. 19 (1861); *J. Verr. Nouv. Arch. Mus.* iii. p. 7, pl. 2. fig. 2 (1867); *Sharpe, ed. Layard's B. S. Afr.* p. 467 (1881).
Foudia madagascariensis (nec L.), *Sci. Ibis*, 1864, p. 299.
Ploceus algondæ, *Schl. P. Z. S.* 1866, p. 423 (ex *Pollen, MSS.*); *id. & Poll. Faun. Madag., Ois.* p. 109, pl. 34 (1868); *Gray, Hand-l. B.* ii. p. 45, no. 6627 (1870).
Calyphantria comorensis, *Cab. in Von der Decken's Reis.* iii. p. 81, pl. 10 (1869); *Finsch & Hartl. Vög. Ostaf.* p. 406, note (1870).
Calyphantria eminentissima, *Cab. t. c.* p. 81 (1869); *Finsch & Hartl. Vög. Ostaf.* p. 406 (1870).
Calyphantria algondæ, *Finsch & Hartl. t. c.* p. 406, note (1870).
Ploceus eminentissimus, *Gray, Hand-l. B.* ii. p. 45, no. 6622 (1870); *Shelley, Ibis*, 1887, p. 15.
Ploceus comorensis, *Gray, t. c.* p. 45, no. 6628 (1870).
Foudia algondæ, *Hartl. Vög. Madag.* p. 216 (1877); *E. Newt. P. Z. S.* 1877, p. 300; *Shelley, P. Z. S.* 1879, p. 677.
Foudia comorensis, *Hartl. Vög. Madag.* p. 217 (1877).
Foudia consobrina, *Milne-Edw. & Oust. C. R. Acad. Sci.* vol. ci. p. 222 (1885).
Ploceus (Foudia) algondæ, *id. N. Arch. Mus.* (2) vi. *Bull.* p. 268 (1888).
Ploceus (Foudia) anjuanensis, *id. t. c.* p. 271.
Ploceus (Foudia) consobrinus, *id. t. c.* p. 271, pl. 9.

Adult male. General colour above dull olive, uniform on the rump and lower back, the rest of the back having blackish centres to the feathers; wings and tail blackish, all the feathers edged with olive; lower rump with a scarlet patch; head all round crimson,

this colour extending on to the breast, the lower part of which is ashy whitish with a slight wash of crimson ; sides of the body dark ashy with an olive tinge, the under tail-coverts being similar ; thighs ashy fulvous washed with rosy ; under wing-coverts and axillaries ashy isabelline with an olive tinge, the latter slightly washed with rosy ; quills dusky below, ashy along the inner web. Total length 5·5 inches, culmen 0·7, wing 3·7, tail 2, tarsus 0·85.

Young males are much more ochreous below, and do not have the red on the head so rich or deep in colour, being more scarlet ; there is also no red on the upper tail-coverts, which are like the rest of the back.

Adult female. Olive-brown, with rather broad blackish stripes to the dorsal feathers, and having distinct white tips to the median and greater wing-coverts. Total length 6 inches, culmen 0·75, wing 3, tail 1·8, tarsus 0·9.

Hab. Islands of Mayotte, Anjuan, Grand Comoro, and Mohilla.

| | | |
|---|---|-------------------|
| <i>a, b.</i> ♂ imm. sk. | Anjuan *. | Sir J. Kirk [C.]. |
| <i>c, d.</i> ♂ ; <i>e.</i> ♀ ad. sk. | Anjuan (<i>Sir J. Kirk</i>). | Shelley Coll. |
| <i>f.</i> ♂ ad. sk. | Anjuan (<i>C. E. Bewsher</i>). | Forbes Coll. |
| <i>g, h.</i> ♂ ; <i>i.</i> ♀ ad. sk. | Anjuan. | M. Humblot [C.]. |
| <i>k, l, m.</i> ♂ ad. ; <i>n.</i> ♀ ad. sk. | Great Comoro Island. | M. Humblot [C.]. |
| <i>o.</i> ♂ ad. sk. | Great Comoro Island (<i>C. E. Bewsher</i>). | Forbes Coll. |
| <i>p, q.</i> ♂ ; <i>r.</i> ♀ ad. sk. | Great Comoro Island (<i>Humblot</i>). | Shelley Coll. |
| <i>s, t.</i> ♂ ad. et juv. sk. | Great Comoro Island (<i>Sir J. Kirk</i>). | Shelley Coll. |

2. *Nesacanthis rubra*.

Red-headed Finch, *Brown, Ill. pl.* 28. fig. 2 (1776) ; *Lath. Gen. Syn.* ii. pt. i. p. 287 (1783).

Le Moineau de l'isle de France, *Daubent. Pl. Enl.* iv. pl. 665. figs. 1, 2.

Crimson Bunting, *Lath. Gen. Syn.* ii. pt. i. p. 194 (1783).

Emberiza rubra, *Gm. Syst. Nat.* i. p. 877 (1788).

Fringilla erythrocephala, *Gm. Syst. Nat.* i. p. 903 (1788).

* One of these specimens is registered as from the Zambesi, but it doubtless came from Anjuan, as it was received on the same day as the other birds from that island. Mr. Gray apparently registered it with other birds collected by Sir John Kirk on the Zambesi, which arrived simultaneously, under the belief that the original specimen of *N. eminentissima* really came from Zanzibar, and thus the species might be looked for on the Zambesi. I do not believe that any of the specimens labelled in collections as coming from Zanzibar really inhabited that island ; they may have been cage-birds from the Comoros, or else some mistake as to their habitat has taken place. The species finds no place in any of the lists of Kirk, Fischer, Hildebrandt, or Böhm, some of whom must have found the bird if it existed at Zanzibar in a wild state. It will be seen that I am unable to recognize more than one species in the Mascarene Islands, and in this respect I adopt Capt. Shelley's conclusions.

- Fringille cardeline*, Vieill. Ois. Chant. p. 52, pl. 28 (1805).
Ploceus erythrocephalus, Swains. An. in Menag. p. 308 (1837); Gray, Gen. B. ii. p. 353 (1849); Lafr. Rev. et Mag. de Zool. 1850, p. 326, pl. 8; Schk. & Poll. Faun. Madag., Ois. p. 213 (1868); Gray, Hand-l. B. ii. p. 45 (1870).
Foudia erythrocephala, Bp. Consp. i. p. 445 (1850); Reichenb. Singv. p. 69, Taf. xxxi. figs. 246, 247 (1861); Hartl. Faun. Madag. p. 55 (1861); E. Newt. Ibis, 1861, p. 272; Hartl. Vög. Madag. p. 213 (1877); E. Newt. Trans. Norf. & Norw. Nat. Soc. 1889, p. 548.
"Foudia martinetti, Gray" (ubi?), Müll. J. f. O. 1856, p. 114.
Foudia rubra, Reichenb. Singv. p. 68, Taf. xxxi. figs. 244, 245.
Ploceus ruber, Shelley, Ibis, 1887, p. 16.

Adult male. Similar to *N. eminentissima*, but with a much more slender bill, and further distinguished by the uniform light olive breast and abdomen; lores and region of the eye black, extending in a streak above the ear-coverts. Total length 5.5 inches, culmen 0.65, wing 2.75, tail 1.7, tarsus 0.85.

Adult female. Similar to the female of *Foudia madagascariensis*, but more uniform above and more olive-green below, with broader and whiter edges to the median and greater wing-coverts. Total length 5 inches, culmen 0.65, wing 2.75, tail 1.6, tarsus 0.75.

Hab. Island of Mauritius.

| | | |
|--------------|-------------------------------|--------------------|
| a. ♂ ad. sk. | Mauritius. | Old Coll. |
| b. ♂ ad. sk. | Mauritius. | Sir A. Smith [C.]. |
| c. ♀ ad. sk. | Mauritius. | Sharpe Coll. |
| d. ♀ ad. sk. | Mauritius (<i>Bewsher</i>). | Shelley Coll. |

3. *Nesacanthis seychellarum*.

- Foudia seychellarum*, E. Newton, P. Z. S. 1867, p. 346; id. Ibis, 1867, pp. 353, 359; Oust. Bull. Soc. Philom. (7) i. p. 101 (1877); Hartl. Vög. Madag. p. 218 (1877); Oust. Bull. Soc. Philom. 1878, p. 175; E. Newt. Trans. Norf. & Norw. Nat. Soc. 1889, p. 548.
Ploceus seychellarum, Gray, Hand-l. B. ii. p. 45, no. 0026 (1870).
Ploceus seychellensis, Shelley, Ibis, 1887, p. 17.

Adult male. General colour above nearly uniform olive, with dusky centres to the feathers of the back and mantle, the lower back and rump uniform olive; wing and tail dusky brown, edged

| | | |
|-----------------------------|---|-------------------|
| a. ♂ ad. sk. | Marianne Island, Seychelles
(Lantz). | Paris Museum [P.] |
| b, c. ♂; d, e. ♀
ad. sk. | Marianne Island (Lantz). | Shelley Coll. |
| f. Juv. sk. | Seychelles, June. | Tweeddale Coll. |

4. *Nesacanthus sakalava*.

Ploceus sakalava, Hartl. *Beitr. Faun. Madag.* p. 54 (1861); *Schl. P. Z. S.* 1866, p. 423; *Grand. Rev. et Mag. de Zool.* 1867, p. 328; *Hartl. P. Z. S.* 1867, p. 823; *Schl. & Poll. Faun. Madag., Ois.* p. xv (1868); *Gray, Hand-l. B.* ii. p. 45, no. 6620 (1870); *Hartl. Vög. Madag.* p. 209 (1877); *Milne-Edw. & Oust. Nouv. Arch. Mus. (2) Bull.* pls. 177a, 178 (1885); *Shelley, Ibis*, 1887, p. 15.
Ploceus sacalavus, Reichen. *Zool. Jahrb.* i. p. 162, pl. 5. fig. 2 (1886).

Adult male (type of species). General colour above ashy brown with a slight tinge of olive; wings and tail brown, the feathers edged with ashy brown; head all round, throat and fore neck and chest lemon-yellow; remainder of under surface pale ashy brown, with a little yellow on the thighs; centre of abdomen and under wing-coverts ashy isabelline: "bill pearly grey; feet rosy; iris brown; bare skin round eye rosy" (*A. Grandidier*). Total length 5.6 inches, culmen 0.7, wing 3.25, tail 2.05, tarsus 0.85.

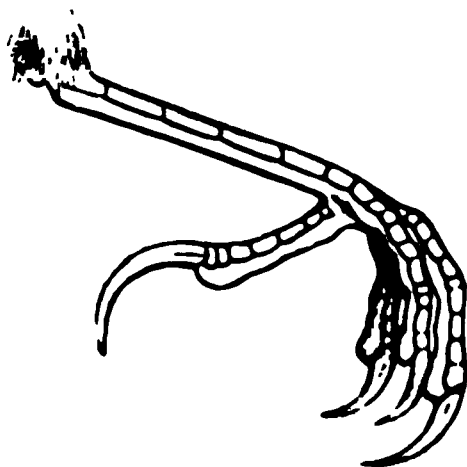
Adult female. A little smaller and has a paler plumage; the head has the same coloration as the back, and on each side there are two stripes of a chestnut-red, the one above, the other below the eye; their inferior surface is whitish. Bare skin round the eye greenish. (*Grandidier*.)

Hab. S.W. Madagascar.

| | | |
|------------|-------------|---------------------------------------|
| a. Ad. sk. | Madagascar. | Sir A. Smith [C.]. (Type of species.) |
|------------|-------------|---------------------------------------|

57. PLOCEUS.

Ploceus, *Cuc. Règne An.* i. p. 363 (1817) Type.
P. baya.



Foot of *Ploceus bengalensis*.

Range. Indian Peninsula and Ceylon, Indo-Chinese countries and Malayan Peninsula to Java and Sumatra.

Key to the Species.

- a. Head orange-yellow; hind neck uniform blackish, as also the sides of the neck; a black band across the breast..... [p. 493.
bengalensis ♂ æstiv.,
- b. Head lemon-yellow; hind neck streaked.
 a'. Throat dusky blackish, the fore neck and breast streaked with black..... [p. 496.
manyar ♂ æstiv.,
- b'. No streaks on fore neck and chest.
 a''. Fore neck and breast yellow, contrasting with blackish throat..... *baya* ♂ æstiv., p. 488.
 b''. Fore neck and breast tawny buff, without yellow..... [p. 491.
atrigula ♂ æstiv.,
- c. Head streaked like the back (♀ et ♂ hiem.): a yellow eyebrow.
 c'. Fore neck mottled with black bases; sides of fore neck with a black patch; sides of neck yellow..... *bengalensis*, p. 493.
- d'. Fore neck, breast, and flanks streaked with black..... *manyar*, p. 496.
- e'. Under surface uniform buff or tawny buff, whiter on the throat and abdomen..... } *baya*, p. 488.
 } *atrigula*, p. 491.

1. *Ploceus baya* *.

Le Grosbec des Philippines, *Briss. Orn.* iii. 1760, p. 232, pl. xii. fig. 1 (♂), pl. xviii. figs. 1, 2 (nests); *Daubent. Pl. Ecl.* iv. pl. 135. fig. 2.

Loxia philippina, *Linn. Syst. Nat.* i. p. 305 (1706).

Le Toucanm-courvi, *Buff. Hist. Nat. Ois.* iii. p. 465 (1775).

Philippine Grosbeak, *Lath. Gen. Syn.* ii. pt. i. p. 129 (1783).

Ploceus philippinus, *Cuv. Règne An.* i. p. 363 (1817); *Sykes, P. Z. S.* 1832, p. 94; *Gray, Gen. B.* ii. p. 252 (1849); *Blyth, Cat. B.* p. 115 (1849); *Layard, Ann. & Mag. N. H.* (2) xiii. p. 256 (1854); *Reid, Str. F.* v. p. 54; *Davidson, t. c.* p. 312; *Davison, t. c.* p. 402; *Taylor, t. c.* p. 402; *Ball, Str. F.* vii. p. 22; *Legge, B. Ceylon*, p. 641 (1879); *Hume, Str. F.* 1879, p. 106; *Butler, Cat. B. Sind &c.* p. 45 (1879); *id. Cat. B. S. Bomb. Pres.* p. 60 (1880); *Vidal, Str. F.* ix. p. 71 (1880); *Davidson & Wenden, t. c.* p. 415; *Swinh. & Barnes, Ibis*, 1885, p. 128; *Vidal, Str. F.* ix. p. 71 (1880); *Reid, Str. F.* x. p. 54 (1881); *Davidson & Wenden, t. c.* p. 312 (1882); *Davison, t. c.* p. 402; *Taylor, t. c.* p. 402.

Euphates philippina, *Less. Mado. Linn.* x. p. 25 (1840); *Blyth*

Holdsw. P. Z. S. 1872, p. 463; *Hume, Nests & Eggs Ind. B.* p. 436 (1873); *Adam, Str. F.* 1873, p. 387; *Hume, Str. F.* 1874, p. 481; *Ball, t. c.* p. 420; *Butler & Hume, Str. F.* 1875, p. 495; *Butler, Str. F.* 1876, p. 39; *Fairb. t. c.* p. 260; *Hume, Str. F.* 1877, p. 323; *Walden, Tr. Z. S.* ix. p. 209 (1875); *Scully, Str. F.* 1879, p. 331.

Ploceus bengalensis (*nec L.*), *Sundev. Ann. & Mag. Nat. Hist.* xviii. p. 260 (1846).

Euplectes baya, *Jerd. Madr. Journ.* xiii. p. 134 (1844).

Nelicurvius fuscicollis, *Reichenb. Singr.* p. 75, Taf. xxxiii. figs. 263-265 (1861).

Ploceus fuscicollis, *Reichen. Zool. Jahrb.* i. p. 156 (1886).

Adult male in breeding-plumage. General colour above streaked, the feathers being brown with blackish centres, the mantle-feathers yellow, centred with black; scapulars brown with paler edges; lower back and rump uniform brown; upper tail-coverts yellow; lesser wing-coverts dark brown, with paler brown edges; median and greater coverts dark brown, edged with white or buffy white like the secondaries; bastard-wing, primary-coverts, and primary-quills dark brown, edged with olive-yellow; tail-feathers light brown, with olive-yellow margins; crown of head uniform golden yellow; a line along the base of the forehead, lores, feathers round eye, sides of face, and ear-coverts blackish brown, the cheeks rather paler, and the throat paler still, being often ashy brown; sides of neck golden yellow, streaked with dusky; fore neck and breast uniform golden yellow; abdomen isabelline white with a yellow tinge; sides of body and flanks very pale brown; thighs tawny buff; under tail-coverts isabelline with a yellow tinge; under wing-coverts and axillaries pale tawny buff; quills below dusky, ashy isabelline along the inner edge; bill horny brown above, yellow at base of lower mandible; feet flesh-colour: "iris dark-brown" (*E. A. Butler*). Total length 5.3 inches, culmen 0.65, wing 2.85, tail 1.75, tarsus 0.75.

Adult female. Different from the male, and wanting the yellow on the head and breast. The head brown, streaked with black like the back, though without the pale whitish-brown edges which are visible on the mantle-feathers; wings and tail as in the male; lores dusky, surmounted by a broad eyebrow of buffy white, which widens above the ear-coverts; feathers below the eye whitish; ear-coverts ashy brown; sides of neck pale tawny buff; cheeks, throat, and under surface of body buffy white, purer white on the abdomen and under tail-coverts; the fore neck, breast, and sides of the body ochreous buff, inclining to tawny buff on the flanks, which show slight signs of dark brown shaft-streaks; on the sides of the upper breast there are also a few small streaks of black; under wing-coverts light tawny buff; quills dusky below, isabelline along the inner web: "bill horny brown above, yellow at the base of the lower mandible: legs and feet flesh-colour; iris dark brown" (*E. A. Butler*). Total length 5.5 inches, culmen 0.65, wing 2.85, tail 1.7, tarsus 0.75.

Some adult females have a wash of yellow on the breast, throat, cheeks, and eyebrow.

Adults in winter plumage. Both sexes are alike at this season of the year, and are in general appearance like the adult female in summer, but are much more tawny everywhere, with broad margins of olive-yellow to the quills and tail-feathers; the eyebrow, the cheeks, the breast, and flanks have a strong tawny-buff tinge, and there is a little yellow on the throat.

Young male. Like the old female, but much more strongly tinged with golden yellow, especially on the head and breast; eyebrow strongly marked and tinted with saffron.

Hab. The greater part of the Indian Peninsula and Ceylon.

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| a. ♂ ad. sk. | Hambantota, S. Ceylon, Dec. 17, 1877 (<i>W. Hart</i>). | Hume Coll. |
| b, c, d. ♂ ad. ;
e. Juv. sk. | Ceylon. | Tweeddale Coll. |
| f. ♀ ad. ; g. ♂
juv. sk. | N.E. Ceylon, July, Aug. | Col. W. V. Legge
[P.] |
| h. ♂ ad. sk. | Mysore (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| i. ♂ ad. sk. | Muddur, Mysore, Aug. 7. | W. Davison, Esq.
[P.] |
| k. ♂ ; l, m. ♀ ad.
sk. | Wynead, April, May (<i>W. D.</i>). | Hume Coll. |
| n, o. ♂ ; p. ♀ ad.
sk. | Belgaum, July (<i>E. A. Butler</i>). | Hume Coll. |
| q, r, s. ♂ ad. et
imm. ; t. ♀ ad. sk. | Madras. | T. C. Jerdon,
Esq. [C.] |
| u, v. ♂ ad. et
imm. sk. | Madras. | Gould Coll. |
| w, x. ♂ ♀ ad. sk. | Madras, June (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| y. ♂ ad. sk. | Malabar. | Forbes Coll. |
| z. ♀ ad. sk. | Malabar. | Tweeddale Coll. |
| a', b'. ♂ ad. et
juv. sk. | Wadale, N.W. of Ahmednuggur,
Sept., Nov. (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| c', d'. ♀ ad. sk. | Mahabaleshwar Hills (Eastern
slope), May (<i>S. B. F.</i>). | Hume Coll. |
| e'-f'. Ad. et juv. sk. | Deccan (<i>Col. Sykes</i>). | India Museum. |
| h', i'. ♂ ♀ ad. sk. | Deccan (<i>Lieut. Burgess</i>). | Gould Coll. |
| m'-o'. ♀ ad. ; p', | Khandeish, July, Dec. (<i>J. David-</i> | Hume Coll. |

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| ξ, o. ♀ ad. sk. | Gurgaon District, Feb. 17 (<i>F. R. Blewitt</i>). | Hume Coll. |
| π-τ. ♂ ad.; υ-ψ. ♀ ad. sk. | Punjab, Aug. & Sept. | Hume Coll. |
| ω. ♂ ad. sk. | N.W. Provinces. | Pinwill Coll. |
| α', β', γ'. ♀ ad.; δ'. Juv. sk. | N.W. Provinces, Feb. (<i>A. Anderson</i>). | Seebohm Coll. |
| ε', ζ', η'. ♂ ad. et juv. sk. | Dehra Doon, Feb. (<i>Dr. G. King</i>). | Hume Coll. |
| θ'. ♂ ad. sk. | Dehra Doon. | Tweeddale Coll. |
| ι'. ♂ juv. sk. | Kumaon Bhabur, March 18 (<i>Dr. G. King</i>). | Hume Coll. |
| κ', λ', μ'. ♂ ad. et imm.; ν'. ♀ ad. sk. | Etawah, Aug. (<i>A. O. H. & W. E. B.</i>). | Hume Coll. |
| ξ'. ♂ ad. sk. | E. Jumna Canal, July 2, 1873 (<i>A. Anderson</i>). | Hume Coll. |
| ο'. ♀ ad. sk. | Sarun district, March 12 (<i>R. M. Adam</i>). | Hume Coll. |
| π', ρ', σ'. ♂ ad.; τ'. ♂ juv.; υ', φ', χ'. ♀ ad. sk. | Futtehgurh district, July, Sept. (<i>A. Anderson</i>). | Seebohm Coll. |
| ψ', ω'. ♂ ♀ ad. sk. | Mogulserai, Oudh, Jan., Sept. (<i>W. E. Brooks</i>). | Hume Coll. |
| a. ♂ juv. sk. | Lalgunj, Oudh, April 21 (<i>R. M. Adam</i>). | Hume Coll. |
| b, c. ♀ ad. sk. | Behar. | Hodgson Coll. |
| d-l. ♂ ad. et imm.; m. ♀ ad. sk. | Nepal Valley, April to July (<i>J. Scully</i>). | Hume Coll. |

2. *Ploceus atrigula* *.

Ploceus atrigula, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 278. figs. 1, 2 (no. 743); *id. in Gray's Zool. Misc.* p. 84 (1844).

Ploceus passerinus, *Hodgs. Icon. ined. in Bibl. Zool. Soc., Passeres*, pl. 277. fig. 3 (no. 70); *Reichen. Zool. Jahrb.* i. p. 156 (1886).

Ploceus baya (*nec Blyth*), *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 515 (1856, pt.); *Godwin-Austen, J. A. S. B.* xxxix. p. 110 (1870); *Blanf. op. cit.* xli. p. 167 (1872); *Hume, Str. F.* 1875, p. 153; *Blyth & Wald. B. Burm.* p. 92 (1875); *Anders. Rep. Zool. Exped. Yunnan, Aves*, p. 597 (1878); *Hume, Str. F.* 1879, p. 106; *id. Str. F.* ix. p. 257 (1880); *Oates, Handb. B. Br. B.* i. p. 358 (1883); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 84 (1883).

Euplectes flaviceps (*nec Cuv.*), *Gray, Cat. Mamm. Sc. Nepal pres. Hodg.* p. 105 (1846).

Nelicurvius baya, *Reichenb. Singv.* p. 76, Taf. xxxiv. figs. 266-268 (1861).

Ploceus philippinus (*nec Linn.*), *Hume & Davison, Str. F.* vi. p. 399 (1878).

Ploceus megarhynchus, *Hume, Str. F.* 1875, p. 406, 1878, p. 400, 1879, p. 103.

Adult male. Similar to *P. baya*, but with very little yellow on

* Dr. Reichenow resuscitates Hodgson's name of *passerinus* for this species. The title is founded on a bird in winter plumage, and *atrigula* on an adult bird. Dr. Reichenow would have us reject the latter name on account of the name of *atrigularis*, of Voigt; but this is an African species, the name is only a synonym, and there is not the slightest risk of confusion in adopting the name of *atrigula*.

the back, and never showing the yellow band across the breast: "bill black; inside of mouth flesh-colour; eyelid grey; legs flesh-colour; claws pinkish horn-colour; iris dark brown" (*E. W. Oates*). Total length 5.7 inches, culmen 0.7, wing 2.8, tail 1.7, tarsus 0.8.

Adult female. Similar to the female of *P. baya*, but generally more tawny both above and below. Total length 5 inches, culmen 0.7, wing 2.8, tail 1.5, tarsus 0.8.

Young birds and old birds in winter plumage are very similar to the corresponding stages in *P. baya*, but the general aspect of the species at all ages is more tawny.

In the southern portions of its range, *P. baya* is remarkable for its deep tawny-rufous appearance, not only on the upper surface, but also on the breast and sides of the body, the throat being at the same time decidedly blackish. In Tenasserim, however, the coloration of specimens is paler, and in Pegu paler still, till in the Bootan Dooars the throat is extremely pale, but the size of the bird gradually increases, especially as regards the bill, till in the Terai it reaches the maximum in this respect, and has been separated by Mr. Hume as *P. megarhynchus*.

Hab. From the Dhoon through the Lower Himalayas to Assam, and from the neighbourhood of Calcutta throughout the Burmese countries and the Malayan Peninsula to Sumatra and Java.

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| a, b. Imm. sk. | Kaladoongi, Dhoon, Dec. | Hume Coll. (Types of <i>P. megarhynchus</i> .) |
| c, d, e. ♂ ad.; f-i. ♀ ad. et juv. sk. | Nepal Terai. | Hodgson Coll. (Types of <i>P. atrigula</i> and <i>P. passerinus</i> .) |
| k, l. ♂ ad.; m-p. ♀ ad. et juv. sk. | Nepal Terai (<i>B. H. Hodgson</i>). | India Museum. |
| q-u. ♂ ad. sk. | Sikhim Terai, July (<i>Otto Müller</i>). | Hume Coll. |
| v, w. ♂ ♀ ad. sk. | Sikhim Terai, May, June. | Seeböhm Coll. |
| x. Imm. sk. | Sikhim Terai, April (<i>L. Mandelli</i>). | Hume Coll. |
| y. ♂; z-v. ♀ ad. et juv. sk. | Darjiling Terai. | Hume Coll. |
| ¢. Imm. sk. | Buxa Dooars, Jan. (<i>L. Mandelli</i>). | Hume Coll. |
| d' v'. ♂ ♀ ad. et | Bootan Dooars, Jan., May | Hume Coll. |

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| c^3, d^3 . ♂ ♀ ad. sk. | Barrackpur (<i>Col. Tytler</i>). | India Museum. |
| e^3, f^3 . ♂ ♀ hiem. sk. | Calcutta, Feb. (<i>J. Bid-dulph</i>). | Tweeddale Coll. |
| g^3, h^3 . Ad. sk. | Maunbhoom, March, April (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| i^3, k^3 . ♂ ad. sk. | Muddapur, Sept. (<i>W. E. Brooks</i>). | Hume Coll. |
| l^3 . Imm. sk. | Bhamo, Upper Burmah, Feb. 3. | Dr. J. Anderson [C.]. |
| m^3-p^3 . ♂; q^3-u^3 . ♀ ad. et juv. sk. | Tonghoo and Rangoon, May-July (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| v^3, w^3 . ♂ ad. sk. | Rangoon. | Hume Coll. |
| x^3-z^3 . ♂; a^4, b^4 . ad. sk. | Akyab district, March, April (<i>J. Armstrong</i>). | Hume Coll. |
| c^4, d^4 . ♂ ad. sk. | Thayetmyo, Aug., Sept. (<i>E. W. Oates</i>). | Hume Coll. |
| e^4-n^4 . ♂ ♀ ad. et juv. sk. | Lower Pegu, June, July (<i>E. W. O.</i>). | Oates Coll. |
| o^4 . ♂; p^4, q^4 . ♀ imm. sk. | Pahpoon, Tenasserim, Jan. (<i>W. Davison</i>). | Hume Coll. |
| r^4-y^4 . ♂ ad. et juv.; z^4-a^5 . ♀ ad. sk. | Tavoy, March to May (<i>W. D.</i>). | Hume Coll. |
| e^5 . ♂ juv. sk. | Amherst, June (<i>W. D.</i>). | Hume Coll. |
| f^5, g^5 . ♂ ad. et juv.; h^5-k^5 . ♀ ad. sk. | Mergui, June, Sept. (<i>W. D.</i>). | Hume Coll. |
| l^5, m^5 . ♂ juv. sk. | Kossoum, April (<i>J. Darling</i>). | Hume Coll. |
| n^5 . ♀ juv. sk. | Wellesley Province, Nov. 25 (<i>W. Davison</i>). | Hume Coll. |
| o^5, p^5 . ♂ ad. et imm.; q^5 . ♀ ad. sk. | Penang (<i>Dr. Cantor</i>). | India Museum. |
| r^5-u^5 . ♂ ♀ ad. sk. | Dingding Islands, Feb., March (<i>W. D.</i>). | Hume Coll. |
| v^5 . ♂ ad. sk. | Klang, Salangore, Jan. 21 (<i>W. D.</i>). | Hume Coll. |
| w^5-y^5 . ♂ ad. et juv. sk. | Malacca (<i>S. Pinwill</i>). | Tweeddale Coll. |
| z^5, a^6 . ♂ ad. sk. | Malacca (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| b^6-m^6 . ♂ ♀ ad. sk. | Malacca, July to Sept. (<i>W. Davison</i>). | Hume Coll. |
| n^6-s^6 . ♂ ♀ ad. et juv. sk. | Malacca (<i>Dr. Cantor</i>). | India Museum. |
| t^6, u^6 . ♂ ad. sk. | Singapore. | Purchased. |
| v^6 . ♂ ad. sk. | Sumatra. | Wallace Coll. |
| w^6-y^6 . Imm. sk. | Lamong, Sumatra (<i>E. C. Burton</i>). | Tweeddale Coll. |
| x^6 . Ad. sk. | Java. | Zoological Society. |
| a^7, b^7 . Imm. sk. | Java. | Tweeddale Coll. |
| c^7 . Ad. st. | Java. | Purchased. |

3. *Ploceus bengalensis*.

Cock and Hen Sparrows from Bengal, *Albin, Nat. Hist. B.* ii. p. 48, pl. 52 (1738).

The Yellow-headed Indian Sparrow, *Edwards, Nat. Hist. B.* iv. p. 189, pl. 180. fig. 1 (1751).

Le Moineau de Bengale, *Briss. Orn.* iii. p. 95 (1760).

- Loxia bengalensis*, Linn. *Syst. Nat.* i. p. 305 (1766).
Grosbec des Indes, Daubent. *Pl. Enl.* iv. pl. 308, fig. 2.
L'Orchef, Buff. *Hist. Nat. Ois.* iii. p. 468 (1775).
Loxia aurata, P. L. S. Mull. *Syst. Nat. Suppl.* p. 152 (1770); Cass.
Proc Philad Acad 1844, p. 252.
Bengal Grosbeak, Lath. *Gen. Syn.* ii. pt. i. p. 133 (1783).
Loxia regina, Bodd. *Tabl. Pl. Enl.* p. 24 (1783).
Coccothraustes chrysomelas, Vieill. *N. Diet. d'Hist. Nat.* xiii. p. 536 (1817).
Ploceus aureus, Less. *Traité*, p. 435 (1831).
Euplectes albirostris, Swains. *An. in Menag.* p. 300 (1837).
Ploceus flavigula, Hodgk. *Icon. ined. in Brit. Mus., Passeres*, pl. 276, fig. 4 (no. 451), *id. in Gray's Zool. Misc.* p. 84 (1844).
Euplectes manyar (nec Horsf.), Jerd. *Madr. Journ.* xi. p. 25 (1840), *Blyth, J. A. S. Beng.* xi. p. 872 (1842).
Ploceus bengalensis, Blyth, *J. A. S. Beng.* xiii. p. 945 (1844); Gray, *Gen. B.* ii. p. 352 (1849); Blyth, *Cat. B. Mus. As. Soc.* p. 115 (1849); Bp. *Consp.* i. p. 443 (1850); Blanford, *Ibis*, 1870, p. 469; Gray, *Hand-l. B.* ii. p. 44, no. 6615 (1870); Godwin-Austen, *J. A. S. Beng.* xxxix. p. 271 (1870); Hume, *Str. F.* 1873, p. 209; Blyth & Wald. *B. Burm.* p. 92 (1875); Butler, *Str. F.* 1877, p. 210; Ball, *t. c.* p. 418; *id. Str. F.* vii. p. 222 (1878); Cripps, *t. c.* p. 203; Butler, *Cat. B. Sind &c.* p. 45 (1879); Hume, *Str. F.* viii. p. 107 (1879), ix. p. 257 (1880); Murray, *Vertebr. Faun. Sind*, p. 181 (1881); Oates, *Handb. B. Br. Burm.* i. p. 361 (1883); Swinh. & Barnes, *Ibis*, 1885, p. 128; Reichen. *Zool. Jahrb.* i. p. 160 (1886); Hume, *Str. F.* xi. p. 270 (1888).
Euplectes manyar (nec Horsf.), Blyth, *J. A. S. Beng.* xiii. p. 134 (1844); Gray, *Cat. Mamm. &c. Nepal pres. Hodgk.* p. 105 (1846).
Nelicurvius bengalensis, Reichenb. *Sing.* p. 75, Taf. xxxiii. fig. 202 (1861).

Adult male. Similar to *P. baya*, but differing in the total absence of yellow on the breast, and by the black band across the chest; the throat sooty blackish: "bill pearly white; legs flesh-colour; iris light brown" (*E. W. Oates*). Total length 4.5 inches, culmen 0.7, wing 2.75, tail 1.45, tarsus 0.8.

Great variation takes place in the colour of the sides of face and throat, which are sometimes quite white, and at others so black as scarcely to be distinguished from the black neck, collar, or hind neck.

Adult female. Not very different from the winter-plumaged male, when adult, but having the black band across the chest less strongly developed, and the yellow of the eyebrow and sides of neck not quite so bright: "upper mandible light brown, the lower one whitish horny with a pinky-bluish tinge; feet fleshy pink; iris brown" (*A. O. Hume*). Total length 5.3 inches, culmen 0.55, wing 2.7, tail 1.6, tarsus 0.95.

Young. Like the adult female, but much browner, especially on the head, which is washed with yellow; ear-coverts and sides of face ashy grey, with a broad black streak along the upper part of the former, and a less distinct line along the inner margin; cheeks and throat yellow, but without a sign of the black malar stripe;

under surface of body tawny buff, the chest slightly mottled with black bases to the feathers.

Winter plumage of adults. Very little different from the summer plumage, but having a more tawny-buff tinge below, the black breast-band entirely obscured by sandy-buff edges to the feathers; down the centre of the crown a slight indication of a pale streak: "upper mandible dusky brown in the male, the lower one pale lavender; feet brownish fleshy pink; iris brown" (*A. O. H.*). "In the females the upper mandible was light brown, the lower one whitish horny, with a pinky bluish tinge" (*A. O. H.*).

Young male after first moult. Like the female. General colour above light tawny brown, broadly streaked with black, the feathers fading off to whitish buff on their margins; scapulars like the back; lower back, rump, and upper tail-coverts ashy brown, with darker brown centres, the tail-coverts brown with ashy margins; lesser wing-coverts brown, shaded with olive, with blackish bases; median and greater coverts blackish, edged with tawny or sandy buff; bastard-wing blackish; primary-coverts and quills blackish brown, externally fringed with olive-yellow, the secondaries broadly edged with sandy buff, becoming whitish towards the end of the inner secondaries, which resemble the scapulars; tail-feathers dark brown, narrowly edged with sandy buff, and washed with olive-yellow near the base; crown of head dark brown, shaded with ashy, especially towards the occiput, the feathers having indistinct dusky centres; nape and hind neck ashy grey, with dusky centres; lores dull ashy, surmounted by a streak of yellow, forming a distinct eyebrow; feathers round eye, sides of face, and ear-coverts blackish brown, with a small streak of yellow below the eye; the ear-coverts hoary near their lower margin, and showing a black line along their upper edge; cheeks yellow, separated from the throat by a malar line of black; throat yellow or whitish with a wash of yellow; a patch of yellow also on the sides of neck behind the ear-coverts; fore neck and chest black, forming a broad prepectoral band; breast light isabelline brown, as also the sides of the body, flanks, thighs, and under tail-coverts, the latter paler; the breast and sides of the body faintly streaked with dusky brown stripes; the abdomen isabelline whitish; under wing-coverts isabelline buff; edge of wing yellow; quills below dusky, ashy isabelline along the inner edge. Total length 5.5 inches, culmen 0.6, wing 2.9, tail 1.8, tarsus 0.8.

Hab. The greater part of the Indian Peninsula, extending into the Burmese countries.

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| <i>a.</i> Ad. sk. | India. | Purchased. |
| <i>b.</i> Imm. st. | India. | Zoological Society. |
| <i>c.</i> Imm. sk. | Shah Hoosein, Sindh, Jan. 25. | Hume Coll. |
| <i>d-g.</i> ♂ hiem. sk. | Upper Sindh, Jan. (<i>A. O. H.</i>). | Hume Coll. |
| <i>h.</i> ♂ ad. sk. | Deesa, July (<i>E. A. Butler</i>). | Hume Coll. |
| <i>i.</i> ♂ ad. sk. | Bhandoop, 15 miles from
Bombay, Aug. | Hume Coll. |
| <i>k-m.</i> Ad. et juv. sk. | N.W. Provinces. | Pinwill Coll. |
| <i>n.</i> ♂ ad. sk. | Monghyr, July. | Hume Coll. |

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| o. ♀ ad. sk. | Delhi, March 25 (<i>C. T. Bingham</i>). | Hume Coll. |
| p, q. ♂; r, s, t. ♀ ad. sk. | Etawah, Feb., Sept., Dec. (<i>A. O. H. & W. E. B.</i>). | Hume Coll. |
| u, v. ♂; w-y. ♀ ad. et imm. sk. | Jheenjuck, Etawah, Sept., Oct. (<i>A. O. H. & W. E. B.</i>). | Hume Coll. |
| z, a'. Ad. et imm. sk. | Pilibheet, Oct. | Hume Coll. |
| b'. ♀ imm. sk. | Allahabad, May (<i>J. Cockburn</i>). | Hume Coll. |
| c'. ♂ ad. sk. | Oudh. | Hume Coll. |
| d'-f'. ♂; g', h'. ♀ ad. sk. | Mogulaerai, Aug. (<i>W. E. Brookes</i>). | Hume Coll. |
| i'. Ad. sk. | Oudh Terai (<i>S. Pinwill</i>). | Tweeddale Coll. |
| k', l. ♂; m', n'. ♀ ad. sk. | Futtehgurh District, Feb., Oct. (<i>A. Anderson</i>). | Seeborn Coll. |
| o'. Ad. hiem. sk. | Nepal Terai. | Hodgson Coll. |
| p', q'. ♂ ♀ ad. sk. | Dinapur (<i>S. Pinwill</i>). | Tweeddale Coll. |
| r'-w'. ♂; x', y'. ♀ ad. et juv. sk. | Calcutta, Feb. | Hume Coll. |
| z'. Ad. sk. | Buxa Doon, Jan. (<i>L. Mandelli</i>). | Hume Coll. |
| a''. Juv. sk. | Bootan (<i>Pemberton</i>). | India Museum. |
| b'', c''. ♂ ♀ ad. sk. | Faridpur, June (<i>J. R. Cripps</i>). | Hume Coll. |
| d''. ♀ ad. sk. | Dibrughur, Assam (<i>F. Day</i>). | Tweeddale Coll. |
| e'', f''. Ad. sk. | Cachar (<i>J. Inglis</i>). | Hume Coll. |
| g'', h''. ♂ juv.; i''. ♀ ad. sk. | Cachar, April (<i>J. Inglis</i>). | Forbes Coll. |
| k''-u''. ♂; v''-z''. ♀ ad. sk. | Manipur, Feb., March (<i>A. O. H.</i>). | Hume Coll. |

4. *Ploceus manyar*.

Fringilla manyar, *Horsf. Tr. Linn. Soc.* xiii. p. 163 (1820).
Ploceus flaviceps, *Less. Traité*, p. 435 (1831, ex *Cuv. MSS.*); *Bp. Consp.* i. p. 443 (1850); *Reichen. Zool. Jahrb.* i. p. 159 (1886).
Ploceus manyar, *Horsf. P. Z. S.* 1839, p. 163; *Blyth, J. A. S. Beng.* xiii. p. 945 (1844); *Jerd. Madr. Journ.* xiii. p. 134 (1844); *Gray, Gen. B.* ii. p. 352 (1849); *Blyth, Cat. B. Mus. As. Soc.* p. 115 (1849); *Layard, Ann. & Mag. Nat. Hist.* (2) xiii. p. 206 (1854); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 514 (1856); *Jerd. B. Ind.* ii. p. 348 (1863); *Gray, Hand-l. B.* ii. p. 44, no. 6614 (1870); *Hume, Str. F.* 1873, p. 208. *Id. Nests & Eggs Ind. B.* p. 440

Adult male. Similar to *P. baya*, but without the yellow on the breast; the fore neck and breast, as well as the sides of the body, tawny rufous or yellowish buff, these parts all forcibly streaked with broad black centres to the feathers; the throat sooty blackish like the sides of face and ear-coverts; nape and hind neck tawny brown streaked with black like the back. Total length 5·5 inches, culmen 0·7, wing 2·75, tail 1·6, tarsus 0·8.

Adult female. General colour above ashy brown, broadly streaked with black, the feathers of the mantle and scapulars margined with tawny buff; wing-coverts blackish, edged with whity brown or tawny buff; bastard-wing, primary-coverts, quills and tail-feathers blackish, margined with olive-yellow; crown of head like the back, but less distinctly streaked; lores dusky; eyebrow white tinged with yellow, extending in a streak behind the ear-coverts; sides of face and ear-coverts sooty blackish; cheeks and under surface of body white, with a yellow tinge on the breast; the fore neck, breast, sides of body, and flanks distinctly streaked with black, more broadly on the latter; thighs white, also streaked with black; under tail-coverts buffy white; under wing-coverts tawny buff; quills below dusky, ashy rufous along the inner edge: "bill brown above, darkening on the culmen towards the tip, pale yellowish flesh-colour below; feet flesh-colour; iris dark brown" (*E. A. Butler*). Total length 5·2 inches, culmen 0·7, wing 2·65, tail 1·6, tarsus 0·85.

Adult in winter plumage. Resembles the plumage of the adult female, but are always much more tawny, especially on the fore neck and breast, which are both strongly streaked with black centres to the feathers, the throat ashy or blackish, the yellow eyebrow and streak behind the ear-coverts and the cheek-stripe all well pronounced.

Young. Much more tawny buff than the adults, broadly streaked with black; the greater coverts, quills, and tail-feathers edged with olive-yellow; under surface of body deep tawny buff. After the first moult the young birds resemble the old female, but are much more tawny rufous, with the throat washed with yellow.

Hab. Ceylon and the greater part of the Indian Peninsula from Sind to Assam, and south to Tenasserim; Java.

| | | |
|---------------------------------------|---|-----------------|
| <i>a, b.</i> Ad. sk. | Ceylon. | Tweeddale Coll. |
| <i>c.</i> ♂ ad.; <i>d.</i> Juv. sk. | Vellarney Lake, Travancore, June 21 (<i>F. Bourdillon</i>). | Hume Coll. |
| <i>e, f.</i> ♂; <i>g.</i> ♀ ad. sk. | Belgaum, Sept., Oct. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>h.</i> ♀ ad. sk. | Sind, Feb. 28. | Hume Coll. |
| <i>i-q.</i> ♂; <i>r, s.</i> ♀ ad. sk. | Sind, Dec. to April (<i>A. O. H.</i>). | Hume Coll. |
| <i>t.</i> ♂ ad. sk. | Hyderabad, May 27 (<i>E. A. Butler</i>). | Hume Coll. |
| <i>u.</i> ♂; <i>v, w.</i> ♀ ad. sk. | Futtehpur, Sind (<i>Dr. H. Gould</i>). | India Museum. |
| <i>x.</i> ♂ ad. sk. | Etawah, May (<i>W. E. Brooks</i>). | Hume Coll. |

| | | |
|---|---|-----------------------------------|
| y, z. ♂ ad. sk. | E. Bengal. | Hume Coll. |
| a'-e'. Ad. sk. | E. Bengal. | India Museum. |
| f. ♀ ad. sk. | Sookpur, Feb. 2. | Hume Coll. |
| g'. ♀ ad. sk. | Assam (<i>McClelland</i>). | India Museum. |
| h', i'. ♀ ad. sk. | Dibrughur, Assam, June,
July (<i>J. R. Cripps</i>). | Hume Coll. |
| k'. ♂ hiem. sk. | Bhamo, Feb. | Dr. J. Anderson [C.]. |
| l'-u'. ♂ ad.; v'-x'.
♀ ad. et juv. sk. | Lower Pegu, March to May,
Aug., Sept. (<i>E. W. O.</i>). | Oates Coll. |
| y', z'. ♂; a. ♀ ad.
sk. | Lower Pegu, March, April,
Sept. (<i>E. W. O.</i>). | Forbes Coll. |
| β. ♀ ad. sk. | Thatone, Tenasserim, Nov. 2
(<i>W. Davison</i>). | Hume Coll. |
| γ. ♂ ad. sk. | Khykehto, Feb. 10 (<i>W. D.</i>). | Hume Coll. |
| δ. ♀ ad. sk. | Beeling, Feb. 11 (<i>W. D.</i>). | Hume Coll. |
| ε. ♂ ad. sk. | Java. | Purchased. |
| ζ-θ. ♂ ad. sk. | Java (<i>Horsfield</i>). | India Museum. |
| i. ♀ ad. st. | Java. | (Types of species.)
Purchased. |

58. SPERMOSPIZA.

Type.

| | |
|--|--------------|
| Spermophaga, <i>Swains. B. W. Afr.</i> i. p. 164 (<i>nec Schönk.</i>
1833) | S. hæmatina. |
| Spermospiza, <i>Gray, List Gen. B.</i> 1840, p. 43. | S. hæmatina. |

Range. West Africa, but reoccurring in the forest-region bordering the Albert Nyanza.

Key to the Species.

- a. Abdomen black like the back. (*Males.*)
 a'. Lower rump and upper tail-coverts black like the back; tip of under mandible only yellow or reddish *hæmatina*, p. 498.
 b'. Lower rump and upper tail-coverts bright crimson; lower part of upper mandible and greater part of lower mandible towards the end reddish *guttata*, p. 500.
 b. Abdomen dark ashy, spotted with white. (*Females.*)
 c. Head dark ashy, legs and eyebrows crimson.

de Zool. 1852, p. 514; *Hartl. Orn. W.-Afr.* p. 138 (1857); *Cass. Proc. Philad. Acad.* 1859, p. 137; *Reichenb. Singv.* p. 52, Taf. xxi. figs. 182, 183 (1861); *Gray, Hand-l. B.* ii. p. 49, no. 6676 (1870); *Sharpe, Cat. Afr. B.* p. 68 (1871); *Büttik. Notes Leyden Mus.* vi. p. 198 (1885); *Shelley, Ibis*, 1886, p. 316; *Büttik. Notes Leyden Mus.* vii. p. 198, viii. p. 260 (1886), x. p. 91 (1888).

Spermospiza guttata, *Sharpe, Ibis*, 1869, p. 384 (♀).

Adult male. General colour above blue-black, with a slight gloss; on the upper tail-coverts a scarcely distinguishable wash of dull crimson; wings and tail black; sides of face, ear-coverts, and fore part of cheeks black, as also a narrow line along the base of the chin; throat, breast, and sides of body bright crimson; lower breast, abdomen, flanks, thighs, under tail-coverts, under wing-coverts, and axillaries black: "bill metallic cyanean blue, the tip and edges vermilion; feet sooty brown; iris red; eyelid milky white" (*J. Büttikofer*). Total length 5.2 inches, culmen 0.65, wing 2.7, tail 2.1, tarsus 0.85.

Adult female. Different from the male. General colour above dark slaty grey, the upper tail-coverts conspicuously dull crimson; wing-coverts like the back, the bastard-wing, primary-coverts, and quills blackish brown, edged with slaty grey; tail-feathers black; crown of head dull crimson, the occiput and nape slaty grey like the hind neck; lores, eyebrow, feathers round eye, sides of face, ear-coverts, and cheeks dull crimson; throat, fore neck, and breast bright crimson; lower breast and abdomen blackish, with twin spots of white near the end of the feathers; sides of body bright crimson; flanks dark slaty grey, also spotted with white; thighs and under tail-coverts dark slaty grey; under wing-coverts and axillaries slaty grey, spotted with white; quills below dusky, ashy along the inner edge: "bill metallic blue, the tips and edges vermilion; feet sooty brown; eyelid milky white; iris red" (*Büttikofer*). Total length 4.8 inches, culmen 0.65, wing 2.6, tail 1.95, tarsus 0.75.

Young male. Dull slaty grey like the female, but more dusky; the dark crimson upper tail-coverts very distinct; head blackish slate-colour, with very little appearance of crimson; under surface of body dusky slate-colour, the feathers of the throat, breast, and sides of body edged with dull red.

Hab. West Africa from Senegambia to Abeokuta.

| | | |
|---|---------------------------------|-----------------------------|
| <i>a.</i> ♂ ad. sk. | West Africa. | Tweeddale Coll. |
| <i>b, c, d.</i> ♂ ♀ ad. et
juv. sk. | West Africa. | Shelley Coll. |
| <i>e.</i> ♀ ad. sk. | Abeokuta. | F. Nicholson, Esq.
[P.]. |
| <i>f, g.</i> ♂ ♀ ad. sk. | Ashantee. | Gould Coll. |
| <i>h.</i> ♂ ad. sk. | Accra (<i>Capt. Haynes</i>). | Sharpe Coll. |
| <i>i.</i> Ad. st. | Fantee. | Capt. Moloney [P.]. |
| <i>k, l.</i> ♂; <i>m, n.</i> ♀
ad. sk. | Fantee (<i>H. T. Ussher</i>). | Shelley Coll. |
| <i>o.</i> ♂ juv. sk. | Fantee. | A. Swanzy, Esq. [P.]. |
| <i>p, q.</i> ♂ ♀ ad.; <i>r.</i> ♀
juv. sk. | Denkera (<i>Aubinn</i>). | Sharpe Coll. |

| | | |
|---------------------------|---|---------------|
| s, t. ♂ ; u. ♀ ad.
sk. | Cape Coast, March (G. E. S.
& H. T. U.). | Shelley Coll. |
| v, w. ♂ ♀ ad. sk. | Gold Coast. | Forbes Coll. |
| x. ♀ ad. sk. | Wassa, March 1872 (H. F.
Blissett). | Shelley Coll. |

2. *Spermospiza guttata*.

- Loxia guttata*, Vieill. Ois. Chant. p. 103, pl. 68 (1805, = ♀).
Coccothraustes guttata, Vieill. N. Dict. d'Hist. Nat. xiii. p. 533 (1817).
Fringilla pustulata, Voigt (nec Illig.), Cuv. Thierr. ii. p. 581 (1831).
Spermospiza guttata, Verr. Rev. et Mag. de Zool. 1852, p. 312; Hartl. Orn. W.-Afr. p. 138 (1857, pt.); Cass. Proc. Philad. Acad. 1859, p. 137; Reichenb. Singu. p. 52, tab. xxi. fig. 181 (1861); Gray, Hand-l. B. ii. p. 49, no. 8677 (1870); Reichen. J. f. O. 1875, p. 41, 1877, p. 28; Sharpe & Bouvier, Bull. Soc. Zool. France, i. p. 49 (1876); Bocage, Orn. Angola, p. 349 (1877-81); Shelley, Ibis, 1880, p. 318.
Spermospiza hæmatina, pt., Sharpe, Cat. Afr. B. p. 68 (1871); Oust. N. Arch. Mus. (2) ii. p. 113 (1879).
Spermospiza immaculosa, Reichen. J. f. O. 1877, p. 20.

Adult male. Similar to *S. hæmatina*, but distinguished by the red markings on the bill and face, and especially by the brilliant crimson of the lower rump and upper tail-coverts: "bill dark blue with red edges; feet black; soles yellow; iris carmine-red; eyelid white" (Reichenow). Total length 5·2 inches, culmen 0·65, wing 2·7, tail 2, tarsus 0·8.

In a young bird, according to Dr. Reichenow, the bill was "dark blue, with yellowish-brown margins, the feet black or greenish slate-colour, and the iris dark."

Adult female. Similar to the female of *S. hæmatina*, but also distinguished by the bright crimson of the lower rump and upper tail-coverts. Total length 5·2 inches, culmen 0·6, wing 2·65, tail 1·8, tarsus 0·85.

Hab. West Africa from Cameroons to the Congo.

| | | |
|-------------------|---------|--------------|
| a, b. ♂ ; c, d. ♀ | Gaboun. | Sharpe Coll. |
|-------------------|---------|--------------|

Pasha). Total length 6·3 inches, culmon 0·7, wing 2·85, tail 2·3, tarsus 0·9.

Hab. Equatorial Africa.

a. ♀ ad. sk. Bellima, July 15.

Emin Pasha [P.]
(Type of species.)

59. AMBLYOSPIZA.

Type.

Pyrenestes, pt., auct.

Amblyospiza, Sundevo. *Cefo. K. Vet.-Akad. Förh. Stockh.*

1850, p. 98.

Coryphegnathus, Reichenb. *Syst. Av. Taf. lxxx. fig. 6*

(1850)

A. albifrons.

A. albifrons.

1.



2.



1. Head of *Amblyospiza albifrons*, to show culmenal ridge.

2. Bill of *Amblyospiza albifrons* from beneath, to show chin-angle.

Range. Confined to Africa.

Key to the Species.

- a. Ear-coverts and sides of face dark brown like the head and mantle, and throat *albifrons*, p. 501.
- b. Ear-coverts and sides of neck black like the throat; head and mantle black with a shade of chocolate-brown *unicolor*, p. 503.
- c. Head and mantle chestnut; sides of face and throat also chestnut.
 - a'. Underparts from the fore neck downward blackish [p. 504. *melanonota*,
 - b'. Underparts from the fore neck pale slaty grey .. *capitalba*, p. 504.

1. *Amblyospiza albifrons*.

Pyrrhula albifrons, Vigors, *P. Z. S.* 1831, p. 92.

Pyrrhula frontalis, Scains. *An. in Menag.* p. 310 (1837).

Pyrenestes frontalis, Smith, *Ill. Zool. S. Afr., Aves*, pls. 61, 62 (1840);

Layard, B. S. Afr. p. 101 (1867).

Pyrenestes albifrons, Gray, *Gen. B.* ii. p. 356 (1844); Gurney, *Ibis*,

1840, p. 213; Gray, *Hand-l. B.* ii. p. 40, no. 6681 (1870); Shelley,

Ibis, 1875, p. 79; Barratt, *Ibis*, 1876, pp. 207, 433.

- Amblyospiza albifrons*, *Sundev. Œfvs. K. Vet.-Akad. Forh. Stockh.* 1850, p. 98; *Butler, Fielden, & Reid, Zool.* 1882, p. 250; *Sharpe, ed Layard's B. S. Afr.* pp. 449, 848 (1884); *Shelley, Ibis*, 1887, p. 45.
Coryphægnathus albifrons, *Bp. Consp. i.* p. 450 (1850), *Cub. Mus. Hein. i.* p. 179 (1850); *Reichenb. Songe.* p. 51, Taf. xx. tigs. 174-177 (1861).
 ? *Coryphægnathus schiffi*, *Bp. Consp. i.* p. 450 (1850).
 ? *Pyrenestes schiffi*, *Gray, Hand-l. B. ii.* p. 49, no. 9683 (1870).

Adult male. General colour above chocolate-brown, the lower back, rump, and upper tail-coverts blackish, the feathers narrowly edged with sandy buff; wing-coverts and quills blackish, with faint sandy-buff edges to some of the coverts and secondary quills, the primaries white at the base, forming a large speculum; tail-feathers black; crown of head chocolate brown like the upper back, slightly rufescent towards the nape; forehead white; lores and feathers below the eye blackish; ear-coverts, cheeks and sides of face, throat, sides of neck, fore neck, and chest chocolate-brown, a little blacker on the throat; breast, abdomen, sides of body, flanks, thighs, and under tail-coverts dark ashy grey, with dusky shaft-stripes and pale sandy buff margins; under wing-coverts and axillaries blackish; quills below black, with a large white patch at the base of the primaries: "base of the upper mandible and the under surface of the lower one livid blackish brown, the other portions dull yellowish grey, clouded with cream-yellow; tarsus, legs, and toes brownish red" (*A. Smith*); iris dark brown. Total length 7·3 inches, culmen 0·9, wing 3·95, tail 2·85, tarsus 0·95.

An adult male in seasonal plumage (July 31) is much browner, and has all the feathers of the upper surface, as well as the coverts and quills, distinctly edged with sandy buff. The lower parts are also very distinctly margined in the same manner. The white on the forehead is much restricted.

Males in full plumage appear to lose entirely the pale margins to the feathers.

Adult female. Different from the male. General colour above rufous brown, mottled with dark-brown centres to the feathers, which have paler and more ochreous brown margins; lesser wing-coverts like the back; median and greater coverts black with rufous-brown margins; bastard-wing, primary-coverts, and quills blackish brown, edged with rufous brown, the primaries with ashy brown; upper tail-coverts dark brown, fringed with sandy buff; tail-feathers blackish brown, edged with rufous brown, and tipped with whitish on the outer feathers; crown of head like the back and similarly mottled; lores and feathers below the eye blackish; ear-coverts uniform reddish brown; cheeks and sides of neck dark brown, streaked with white; throat and under surface of body white, streaked with dusky brown centres to the feathers, very distinct on the fore neck and chest, more longitudinal on the breast, and smaller on the abdomen, which is purer white; sides of body and flanks washed with reddish brown, and broadly streaked with dark brown; thighs brown, broadly edged with white; under tail-

coverts white, with dark brown centres to the feathers; under wing-coverts and axillaries uniform pale tawny buff, whiter near the edge of the wing; quills below dusky brown, ashy isabelline along the inner web: "bill greenish yellow, the upper mandible dusky at tip; tarsi and feet dusky; iris dusky" (*W. Ayres*). Total length 7 inches, culmen 0·6, wing 3·4, tail 2·4, tarsus 0·9.

Young male. At first resembles the old female, but is rather more rufous brown. The stripes on the under surface are much paler brown. The bill is generally stronger than in any female bird, and the yellow colour is more or less mixed with black, the dark bill being essentially a distinct characteristic of the adult male. The speculum is absent at first, or only feebly indicated by a shade of pale tawny buff at the base of the primaries: "bill Dutch-orange colour, the tip of the upper mandible and the base of both mandibles livid liver-brown" (*Sir A. Smith*).

Hab. South-eastern Africa.

| | | |
|---|---|---------------------------|
| <i>a, b, c.</i> ♂ ad. sk. | South-east Africa. | Sir A. Smith [C.]. |
| <i>d.</i> ♀ ad. sk. | Maclean Town, British Caffraria. | Major Trevelyan [P.]. |
| <i>e.</i> ♂ ad. sk. | Natal. | T. Ayres [C.]. |
| <i>f, g.</i> ♂ ♀ ad. | Pinetown, Natal, Oct., Dec. (<i>T. L. Ayres</i>). | Seebohm Coll. |
| <i>h-o.</i> ♂ ad. et juv.; <i>p, q.</i> ♀ ad. sk. | Durban and Pinetown, July, Oct. | Shelley Coll. |
| <i>r.</i> ♂ juv. sk. | Port Natal, July 24, 1839 (<i>J. Wahlberg</i>). | Sharpe Coll. |
| <i>s, t.</i> ♂ ♀ ad. sk. | Transvaal. | Forbes Coll. |
| <i>u, v.</i> ♂ ♀ ad. sk. | Macamac, Eastern Transvaal, July 30, 1874. | F. A. Barratt, Esq. [P.]. |

2. *Amblyospiza unicolor*.

Pyrenestes albifrons (*nec Vig.*), *Sharpe, P. Z. S.* 1873, p. 713.

Pyrenestes unicolor, *Fisch. & Reichen. Orn. Centr.* 1878, p. 88; *id. J. f. O.* 1878, pp. 264, 354, 1879, p. 353; *Fischer, J. f. O.* 1880, p. 195.

Amblyospiza unicolor, *Shelley, P. Z. S.* 1881, p. 589; *id. Ibis*, 1887, p. 45; *id. Ibis*, 1888, p. 294.

Coryphegnathus unicolor, *Fischer, Zeitschr. ges. Orn.* i. p. 328 (1884); *id. J. f. O.* 1885, p. 134.

Adult male. Similar to *A. albifrons*, but smaller and blacker, the head and mantle being black with only a slight wash of chocolate-brown; the throat and breast also black, not brown as in *A. albifrons*: "bill and feet black; iris dark brown" (*G. A. Fischer*). Total length 6·5 inches, culmen 0·85, wing 3·6, tail 2·4, tarsus 0·9.

Adult female. Similar to the female of *A. albifrons*, but slightly smaller and darker: "upper mandible horn-brown, lower mandible horny yellow; feet dark brown; iris brown" (*G. A. Fischer*). Total length 5·7 inches, culmen 0·75, wing 3·7, tail 2·2, tarsus 0·85.

Hab. East Africa; Zanzibar district from Mombasa to Kilimanjaro.

and axillaries clear isabelline; quills below dusky, light rufous at the base of the inner web: "bill brown, under mandible yellowish; feet brown; iris greyish blue" (*Dr. Fischer*). Total length 8.5 inches, culmen 0.8, wing 5.1, tail 3.7, tarsus 1.05.

Hab. Interior of Eastern Africa.

a. ♂ ad. sk.

Ruwana River, Jan. 22.

Dr. Fischer [C.].

61. DINEMELLIA.

| | |
|--|---------------|
| Dinemellia, <i>Reichenb. Singr.</i> p. 88 (1861) | Type. |
| Limoneres, <i>Reichen. J. f. O.</i> 1885, p. 372 | D. dinemelli. |



Head of *Dinemellia dinemelli*, to show shape of culmen.

Range. N.E. and E. Africa.

Key to the Species.

- a.* Back black, with white edgings to the feathers *dinemelli*, p. 506.
b. Back black, without white edgings *boehmei*, p. 507.

1. *Dinemellia dinemelli*.

Textor dinemellii, *Rupp Syst. Uebers.* pp. 72, 76, pl. 30 (1845, ex *Horsf. MSS*); *Des Murs in Lefebvre's Voy. Abyss.* p. 108 (1845); *Gray & Mitch. Gen. B.* ii. p. 350, pl. 87 fig. 2 (1849); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 521 (1854); *Heugl. Syst. Uebers.* p. 37 (1856); *id. J. f. O.* 1867, p. 367; *Gray, Hand-l. B.* ii. p. 40, no. 6550 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 534 (1870), iv. p. cxxviii (1871); *Finch & Hartl. Voy. Ostaf.* p. 386 (1870); *Cab. J. f. O.* 1878, pp. 299, 351; *Fischer & Reichen. J. f. O.* 1879, pp. 299, 351; *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 101 (1881); *Pelz. Verh. z.-b. Ges. Wien*, xxx. p. 148 (1881); *Shelley, P. Z. S.* 1872, p. 307; *Fischer, Zeitschr. ges. Orn.* i. p. 333 (1884); *Salvad. Ann. Mus. Genov.* (2) i. p. 194 (1884); *Fischer, J. f. O.* 1885, p. 132; *Shelley, Ibis*, 1885, p. 400, *id. Ibis*, 1887, p. 44; *Bartl. Monogr. Weurer-B.* pt. 1, pl. i. fig. 1 (1888).

Textor leucocephalus, *Rupp Syst. Uebers.* p. 72 (1845).

Alecto dinemelli, *Heugl. J. f. O.* 1861, p. 25; *Antin. Cat. descr. Ucc.* p. 63 (1864).

Dinemellia leucocephalus, *Reichenb. Singr.* p. 88, Taf. xlv. figs. 327, 328 (1861); *Salvad. Ann. Mus. Genov.* (2) vi. p. 293 (1888).

Limoneres dinemelli, *Reichen. J. f. O.* 1885, p. 372.

Adult male. General colour above brown, with lighter brown edges to the feathers of the back and mantle; rump and upper tail-coverts scarlet; some of the scapulars edged with white; lesser wing-coverts blackish, with a patch of scarlet near the edge of the wing; median coverts brown; greater coverts brown, edged narrowly with white; bastard-wing, primary-coverts, and quills blackish brown, the secondaries edged with white, the primaries white at the base, forming a conspicuous patch; tail-feathers blackish brown; crown of head, hind neck, sides of face, ear-coverts, cheeks, sides of neck, and entire under surface of body white; thighs black; under tail-coverts scarlet; under wing-coverts and axillaries blackish brown; quills below brown, the basal half of the wing white. Total length 7·7 inches, culmen 0·9, wing 4·9, tail 3, tarsus 1·2.

Adult female. Similar to the male. Total length 7·8 inches, culmen 0·85, wing 4·5, tail 3, tarsus 1·25.

Hab. Upper Nile districts to Equatorial Africa and Shoa and south to the Zanzibar district.

| | | |
|---------------|--|-----------------------|
| a. Ad. sk. | Soudan (<i>Knoblecker</i>). | Shelley Coll. |
| b. Ad. sk. | Shoa (<i>Sir W. E. Harris</i>). | India Museum. |
| | | (Type of species.) |
| c. ♂ ad. sk. | [Abyssinia.] | Sharpe Coll. |
| d. ♀ ad. sk. | Shoa, Feb. 1842 (<i>Sir W. C. Harris</i>). | India Museum. |
| e. ♂ ad. sk. | Shoa, Aug. 14 (<i>O. Antinori</i>). | Shelley Coll. |
| f, g. Ad. sk. | Somali-Land (<i>E. Lort Phillips</i>). | Shelley Coll. |
| h. ♂ ad. sk. | Lado, March 22 (<i>Emin Pasha</i>). | Shelley Coll. |
| i. Ad. sk. | Masai-Land (<i>J. Thompson</i>). | Shelley Coll. |
| k. ♂ ad. sk. | Ukambani, Feb. 25, 1877. | Dr. J. M. Hildebrandt |
| | | [C.] |
| l. ♂ ad. sk. | Useri River, July. | H. C. V. Hunter, Esq. |
| | | [P.] |
| m. Ad. sk. | Mamboio (<i>Sir J. Kirk</i>). | Shelley Coll. |

2. *Dinemellia boehmi*.

Alecto dinemellii (*nec Rüpp.*), *Sci. P. Z. S.* 1864, p. 109.

Textor dinemelli (*nec Rüpp.*), *Böhm, J. f. O.* 1883, p. 196; *Schalow, t. c.* p. 361.

Textor boehmi, *Reichen. J. f. O.* 1885, p. 372, 1887, p. 67; *Shelley, Ibis*, 1887, p. 44; *Matschie, J. f. O.* 1887, p. 154.

Textor (*Limoneres*) *boehmi*, *Reichen. J. f. O.* 1887, p. 67.

Adult female. Similar to *D. dinemelli*, but altogether darker and of a more uniform chocolate-brown, and easily distinguished by the absence of white edgings to the scapulars, greater wing-coverts, and inner secondaries: "bill brownish grey; feet brownish black; iris brown; bare space round the eye black" (*R. Böhm*). Total length 7·8 inches, culmen 0·95, wing 4·9, tail 3, tarsus 1·2.

Hab. Lake districts between the Victoria Nyanza and Western Masai-Land.

| | | |
|--------------|------------------------------------|---------------|
| a. ♀ ad. sk. | Gonda, Oct. 23 (<i>R. Böhm</i>). | Shelley Coll. |
|--------------|------------------------------------|---------------|

62. TEXTOR.

| | Type |
|--|-------------------------|
| Textor, Temm. <i>Pl. Col.</i> iii text to pl. 446 (1828) | <i>T. albirostris</i> . |
| Alecto, Less. <i>Traité</i> , p. 433 (1831) | <i>T. albirostris</i> . |
| Bubalornis, Smith, <i>Rep. Expl. Exped. Centr. Afr.</i> p. 50 (1856) | <i>T. niger</i> . |
| Dertrouides, Swains. <i>B. W. Afr.</i> p. 161 (1837) | <i>T. albirostris</i> . |
| Alectornis, Reichenb. <i>t. c.</i> p. 89 (1861) | <i>T. albirostris</i> . |

Head of *Plector niger*.

Range. Confined to Africa.

Key to the Species.

- a. Bill white in living bird, white with black tip generally in skin; no white whatever on the base of the inner webs of the quills *albirostris*, p. 508.
- b. Bill coral-red in the living bird, red or yellowish in skin.
 - a'. With a large white base to the inner lining of the quills; bill swollen at base of culmen in adults *niger*, p. 509.
 - b'. With a very small white base to the inner lining of the primaries; base of culmen not swollen *intermedius*, p. 511.
 - c'. With a scarcely perceptible shade of pale ashy at the base of the inner lining of the primaries; base of culmen swollen *scioanus*, p. 511.

1. *Textor albirostris*.

Coccothraustes albirostris, Vieill. *N. Dict. d'Hist. Nat.* xiii. p. 535 (1817).

Textor alecto, Temm. *Pl. Col.* iii. pl. 446 (1846); *Des Murs in Lefebvre's Voy. Abyss.* p. 111 (1845); *Rupp. Syst. Vebers.* p. 76 (1845); *Gray, Gen. B.* ii. p. 350, pl. 87 fig. 1 (1849); *Cub. Mus. Hein.* Th. i. p. 183 (1850); *Heugl. Syst. Vebers.* p. 37 (1856); *Hartl. Orn. W.-Afr.* p. 131 (1857), *id. J. f. O.* 1861, p. 176; *Gray, Hand-l. B.* ii. p. 40, no. 6552 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 532 (1870), iv. p. cxxviii (1871); *Blumf. Geol. & Zool. Abyss.* p. 402 (1870); *Finsch, Tr. Z. S.* vii p. 261 (1870); *Anten. & Salvad. Viagg. Lagos*, p. 123 (1873); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 101 (1881); *Pelz. Verh. z.-b. Ges. Wien*, xxx. p. 148 (1881).

Alecto alecto, Less. *Traité*, p. 434 (1831).

Plocerus alecto, *Rupp. Acue Wirb., Log.* p. 100 (1835).

Dertrouides albirostris, Swains. *Classif. B.* ii. p. 279 (1837); *id. B. W. Afr.* i. p. 163 (1837).

Alecto albirostris, *Bp. Consp.* i. p. 438 (1850); *Hartl. J. f. O.* 1854, p. 105; *Antin. Cat. descr. Ucc.* p. 62 (1864).

Alectornis albirostris, *Reichenb. Singv.* p. 89, pl. xlv. fig. 330 (1861).

Adult male. Black, but with the bill whitish (in skin), black at the ends, the basal portion of the culmen swollen into a prominent knob; also distinguished by the absence of white on the lower surface of the quills: "bill black, the basal portion covered with a pale yellow fleshy cere; legs dusky horn-colour" (*W. T. Blanford*). Total length 8·7 inches, culmen 1, wing 4·95, tail 4·2, tarsus 1·15.

Adult female. Similar to the male (*Von Heuglin*).

Young. Similar to the male, but everywhere brown instead of black; the feathers showing the same white bases as in the adult male; the wing-coverts with reddish-brown margins, the primaries edged with buffy whitish. Total length 9 inches, culmen 0·9, wing 4·6, tail 3·6, tarsus 1·2.

The two Senegambian specimens have the bill jet-black, the base of the culmen perfectly smooth and not swollen. Total length 8·3 inches, culmen 0·9, wing 5·1, tail 3·85, tarsus 1·15. I cannot determine whether this black bill is a permanent characteristic of Gambian birds or whether it is only a sign of immaturity.

Hab. Senegambia and N.E. Africa.

| | | |
|---|--|----------------------------|
| <i>a, b.</i> Ad. sk. | River Gambia. | Purchased. |
| <i>c.</i> Ad. sk. | Abyssinia. | Dr. Rüppell [C.]. |
| <i>d.</i> ♀ ad. sk. | Abyssinia (<i>Dr. E. Kotschy</i>). | Shelley Coll. |
| <i>e.</i> [♀] ad.; <i>f.</i> ♂ juv. sk. | Malti, Bogos-Land (<i>Esler</i>). | Sharpe Coll. |
| <i>g.</i> Juv. sk. | Anseba Valley (<i>Esler</i>). | Shelley Coll. |
| <i>h, i.</i> ♂ ad. sk. | Anseba Valley, July. | W. T. Blanford, Esq. [C.]. |
| <i>k, l, m.</i> ♂ ♀ ad. sk. | Waliko, July 21, 1868 (<i>W. Jesse</i>). | |
| <i>n.</i> ♂ ad. sk. | Nubia. | Sharpe Coll. |

2. *Textor niger*.

? *Le Bouvreuil noir d'Afrique*, *Briss. Orn.* iii. p. 317 (1760).

? *Loxia panicivora*, *Linn. Syst. Nat.* i. p. 302 (1766) *.

Bubalornis niger, *Smith, Rep. Exped. Centr. Afr.* App. p. 52 (1836).

Textor erythrorhynchus, *Smith, Ill. Zool. S. Afr.* pl. 64 (1841); *Gray, Gen. B.* ii. p. 350 (1849); *Hartl. J. f. O.* 1861, p. 176; *Reichenb. Singv.* p. 88, Taf. xlv. fig. 329 (1861); *Layard, B. S. Afr.* p. 178 (1867); *id. Ibis*, 1869, p. 78; *Gray, Hand-l. B.* ii. p. 40, no. 6554 (1870); *Ayres, Ibis*, 1871, p. 255; *Buckley, Ibis*, 1874, p. 379; *Bocage, Orn. Angola*, p. 317 (1881); *Sharpe in Oates' Matabele-Land*, App. p. 318 (1881); *Holub & Von Pelz. Beitr. Orn. Südafr.* p. 113 (1882); *Shelley, Ibis*, 1882, p. 352; *Sharpe, ed.*

* Linnæus quotes the Black Bullfinch of Albin (*N. H. B.* iii. p. 65, pl. 69), which is certainly not a *Textor*. Brisson's bird may be the present species; but Linnæus can hardly be said to have founded his *Loxia panicivora* on Brisson's description, as he writes 'rostro incarnato,' which looks as if he was thinking of Albin's plates. The name had better be dropped.

- Leyard's B. S. Afr.* p. 445 (1884); *Büttik. Notes Leyden Mus.* xi. p. 74 (1889).
Alecto erythrorhynchus, *Bp. Consp.* i. p. 438 (1850).
Textor niger, *Strickl. & Sci. Contr. Orn.* 1852, p. 150; *Salvin, Cat. Strickl. Coll.* p. 240 (1882).
Alecto panicivorus, *Müll. J. f. O.* 1855, p. 460.
Textor panicivorus, *Hartl. Orn. W.-Afr.* p. 131 (1857); *Gray, Hand-l. B.* ii. p. 40, no. 6558 (1870); *Shelley, Ibis*, 1887, p. 43; *Bartl. Monogr. Weaver-B.* pt. ii. pl. 2 (1888).
Alectornis panicivora, *Reichenb. Singu.* p. 89 (1861).
Textor alecto (*nec Temm.*), *Sharpe, P. Z. S.* 1869, p. 566.
Bubalornis erythrorhynchus, *Gurney in Anderss. B. Dam.-Ld.* p. 165 (1872).

Adult male. Entirely black, the feathers more or less mottled with snowy-white bases; the primary quills externally edged with white, which extends nearly to the end of the outer web on the inner primaries: "quills black below, with more than the inner half white; bill coral-red; legs salmon-colour; iris hazel" (*Frank Oates*). Total length 9.5 inches, culmen 0.9, wing 4.6, tail 3.9, tarsus 1.2.

Adult female. Duller and more brownish black than the male, with less pronounced white bases to the feathers; sides of face decidedly washed with ashy grey; throat hoary whitish, especially towards the chin; a few of the breast-feathers with remains of whitish margins. Total length 9 inches, culmen 0.9, wing 4.45, tail 3.9, tarsus 1.1.

Narrow fringes of white are seen on the primary-coverts in the specimen described. These are more distinct in a female from Angola, which is, however, decidedly blacker, so that it is probable that in fully adult birds there is very little difference between the sexes.

Young birds resemble the old female on the upper surface of the body, but are whiter below, the feathers of the under surface being all margined with white. Some specimens have the centre of the breast white with mesial streaks of black, and a few blackish margins. The bill likewise appears to be more horn-brown.

Hab. South Africa from the interior of the Cape Colony and the

| | | |
|--------------------------------|---|---------------|
| <i>k, l.</i> ♂ ad. sk. | Damara-Land, July (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>m, n.</i> ♂ ad. sk. | Otjimbinque, Oct., Nov. (<i>C. J. A.</i>). | |
| <i>o.</i> ♂ juv. sk. | River Quanza, May 1869 (<i>J. J. Monteiro</i>). | Sharpe Coll. |
| <i>p, q.</i> ♂ ad. et imm. sk. | Galungo, Angola, Sept. (<i>G. A. Sala</i>). | Sharpe Coll. |
| <i>r, s.</i> ♂ ♀ ad. sk. | Kiulo and Humbe, Oct. (<i>J. Anchieta</i>). | Shelley Coll. |

Subsp. α . *Textor intermedius*.

Textor intermedius, *Cab. in Von der Decken's Reis.* iii. p. 33, pl. ii. (1869); *Finsch & Hartl. Vög. Ostaf.* p. 385 (1870); *Gray, Hand-l. B.* ii. p. 40, no. 6555 (1870); *Fischer, Zeitschr. ges. Orn.* 1884, p. 333; *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 196 (1884); *Shelley, Ibis*, 1885, p. 410; *Reichen. J. f. O.* 1887, p. 67.

Textor albirostris (pt.), *Shelley, Ibis*, 1887, p. 44.

Adult male. Similar to *T. niger*, but with only a little white at the base of the inner web of the primaries: "bill red, the edges and tip brownish; feet yellowish grey-brown; iris brown" (*G. A. Fischer*). Total length 8·8 inches, culmen 0·95, wing 4·75, tail 3·6, tarsus 1·3.

Hab. Zanzibar district of Eastern Africa, north to Somali-Land.

a, b. ♂ ad. et juv. sk. Somali-Land (*E. Lort Phillips*). Shelley Coll.

Subsp. β . *Textor scioanus*.

Textor erythrorhynchus (*nec Sm.*), *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 521 (1856).

Textor scioanus, *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 195 (1884), vi. p. 296 (1888).

Textor albirostris, pt., *Shelley, Ibis*, 1887, p. 44.

Adult male. Similar to *T. niger*, but without the white base to the inner lining of the quills, which are ashy towards the base of the inner web; bill red and having a swelling at the base of the culmen: "bill blood-red, inclining to brown at the tip; feet horn-brown; iris dull chestnut" (*Ragazzi*). Total length 8·7 inches, culmen 0·85, wing 4·7, tail 3·7, tarsus 1·2.

Hab. Shoa.

| | | |
|----------------------|--|---------------|
| <i>a.</i> ♀ imm. sk. | Harbodi, Shoa, July (<i>Sir W. C. Phillips</i>). | India Museum. |
| <i>b.</i> ♂ ad. sk. | Daimbi, Shoa, Nov. 9 (<i>O. Antinori</i>). | Shelley Coll. |

Family ALAUDIDÆ.

The arrangement followed in the present volume is practically the same as that proposed by me in my Synopsis of African Larks in 1874. The characters for separating some of the genera may be somewhat slight; but as they are perfectly capable of illustration and easy of comprehension, I see no reason for modifying the arrangement then set forward, excepting in one or two instances where an examination of increased material has enabled me to detect some errors.

Key to the Genera.

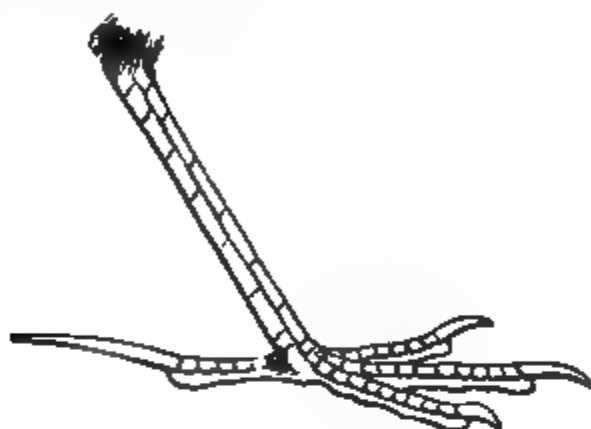
- | | |
|--|--------------------------|
| a. Bill elongated, the culmen longer than the middle toe and claw, or equal to it. | |
| a'. First primary about equal to or a little longer than the tarsus. | |
| a''. Hind claw long and perfectly straight..... | 1. CERTHILAUDA, p. 514. |
| b''. Hind claw curved. | |
| a'''. Hind claw slightly curved, about equal to hind toe..... | 2. ALÆMON, p. 517. |
| b'''. Hind claw very much curved, and shorter than the hind toe. | 3. HETEROCORYS, p. 524. |
| b'. First primary very much diminished in size and not equal to half the tarsus. | |
| c'. Bill long and slender, about as high as it is broad at nostrils.... | 4. CHRISOPHILUS, p. 525. |
| d'. Bill very stout, much higher than broad at nostrils..... | 5. RHAMPHOCORYS, p. 527. |
| b. Bill stouter and shorter, the culmen shorter than the middle toe and claw. | |
| c'. With lateral elongated hornlets on the side of the head..... | 6. OTOCORYS, p. 528. |
| d'. No elongated hornlets on the side of the head. | |
| e''. First primary rudimentary, shorter than the inner toe and claw, or not exceeding these in length. | |
| e'''. Distance between tips of primaries and tips of secondaries | |

- c. Bill short and slender: wing shorter, falling short of tail by more than the length of the tarsus: hind claw very long and straight. 10. ALAUDA, p. 508
- d. Bill short and oval: wing long, falling short of tail by less than the length of the tarsus: hind claw short and curved.
- e. Secondaries as long as the primaries 11. CALANDRELLA, p. 519.
- f. Secondaries much shorter than the primaries 12. ALAUDULA, p. 558.
- g. First primary well developed, equal to or exceeding the inner one and claw in length.
- h. Nostrils exposed, with a superior membrane 13. MIRAFRA, p. 563.
- i. Nostrils covered with stiff bristly pinnules. 14. SPILOCORYS*, p. 620.
- j. Bill slender, about as long as it is high at nostrils.
- k. Head with a very distinct median crest: exposed culmen longer than hind claw.
- l. Culmen much less than the crura: bill short and stout.
- m. First primary not longer than the hind claw; crura very fully developed. 15. SPIZALAUDA, p. 621.
- n. First primary rather long, exceeding the length of the hind claw: crura feebly developed. 16. HELIOCORYS, p. 623.
- o. Culmen about equal to the crura: bill long and slender. 17. GALERITA, p. 625.
- p. Crura rounded and full; hind claw longer than exposed culmen. 18. LUSITANIA, p. 631.
- q. Bill stout, longer than broad at nostrils.
- r. Hind claw long and pointed, longer than hind toe: bare nostrils with black centres in the lacrymæ 19. CALENDULA, p. 639.
- s. Hind claw curved, shorter than hind toe: pinnule uniform above 20. ANTHUS, p. 641.
- t. Hind claw curved and short, about equal to the hind toe. 21. PYRRELLA, p. 650.

* I have not seen a specimen of this genus, but I believe that its position belongs here.

1. CETHILAUDA.

| | Type. |
|--|----------------------|
| <i>Certhilauda</i> , Swains. <i>Zool. Journ.</i> iii. p. 344 (1827) | <i>C. capensis</i> . |
| <i>Thinotretis</i> , Gloger, <i>Handb. Naturg.</i> p. 266 (1842) | <i>C. capensis</i> . |
| <i>Chersomanes</i> , Cab. <i>Mus. Hein.</i> Th. i. p. 126 (1850) | <i>C. rufula</i> . |
| <i>Toxocorys</i> (nom. emend.), Sundev. <i>Av. Meth. Tent.</i> p. 155 (1872) | <i>C. capensis</i> . |

Foot of *Certhilauda capensis*, to show straight hind claw.

Range. Confined to South Africa.

Key to the Species.

- a. No white spots at the end of the tail-feathers;
flanks as broadly streaked and spotted as the
breast. *capensis*, p. 514.
- b. Large white spots at the end of the tail-feathers;
spots confined to the throat and chest *rufula*, p. 515.

1. *Certhilauda capensis*.

Le Sirli du Cap de Bonne Espérance, *Daubent. Pl. Enl.* x. pl. 712;
Month. Hist. Nat. Ois. v. p. 65 (1778).

Alauda capensis, *Bodd. Tabl. Pl. Enl.* p. 45 (1783).

African Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 389 (1783).

Alauda africana, *Gm. S. N.* i. p. 798 (1788). *Vicill. Gal. Ois.* ii.

Adult. Above brown, slightly washed with sandy colour and streaked with dark brown centres to the feathers, many of which are tipped with whitish; hind neck greyish; wing-coverts darker brown, washed with sandy colour on the outer web and tipped with whitish, the primary-coverts narrowly tipped with the latter colour also; quills ashy brown, narrowly margined with sandy buff, the innermost secondaries with a broad whitish margin; rump and upper tail-coverts sandy rufous, with dark brown central streaks to the feathers; upper tail-coverts ashy brown, darker brown in the centre of the feathers; tail-feathers dark brown, narrowly margined with ashy fulvous, the two middle ones washed with greyish, the outermost margined and tipped with pale sandy buff; a very distinct eyebrow creamy white; feathers under the eye dusky white, those in front of the latter blackish; ear-coverts dull sandy colour; cheeks whitish, minutely spotted with black; chin white; rest of under surface buffy white, the breast slightly washed with sandy colour, the lower throat, fore neck, and breast plentifully marked with triangular spots of black, larger and more longitudinal on the lower breast and sides of the body; sides of the upper breast shaded with ashy; under wing-coverts sandy buff, the outermost minutely spotted with dark brown, the lower series ashy brown, like the inner lining of the wing, the inner webs being pale rufous near the base; under tail-coverts white, broadly streaked down the centre with black: "bill yellowish brown, shaded with umber-brown; legs and toes clear buff-orange, tinted with flesh-red; claws yellowish brown, shaded with umber-brown; iris dark brown" (*Sir A. Smith*). Total length 7·4 inches, culmen 10·5, wing 3·9, tail 3, tarsus 1·15.

Hab. Cape Colony.

| | | |
|----------------------|---------------------------------------|-----------------|
| <i>a.</i> Ad. sk. | South Africa. | Tweeddale Coll. |
| <i>b, c.</i> Ad. sk. | South Africa (<i>E. L. Layard</i>). | |
| <i>d-f.</i> Ad. sk. | George, Knysna (<i>H. Atmore</i>). | |

2. *Certhilauda rufula*.

Anthus rufulus, *Vieill. N. Dict. d'Hist. Nat.* xxvi. p. 494 (1818);
id. Gal. Ois. ii. pl. clxi. (1825); *Bp. C. R.* xxxviii. p. 65 (1854).

Certhilauda albofasciata, *Lafr. Mag. de Zool.* 1836, *Ois.* p. 58; *Gray, Gen. B.* ii. p. 383 (1844).

Certhilauda garrula, *Smith, Ill. Zool. S. Afr., Aves*, pl. 106. fig. 1;
Bp. Consp. i. p. 246 (1850); *Layard, B. S. Afr.* p. 216 (1867);
Ayres, Ibis, 1869, p. 295, 1871, p. 268; *Gray, Hand-l. B.* ii. p. 121,
 no. 7791 (1870); *Sharpe, P. Z. S.* 1874, p. 618; *id. ed. Layard's B. S. Afr.* p. 498 (1884).

Chersomanes garrula, *Cab. Mus. Hein.* Th. i. p. 126 (1850).

Alæmon albofasciata, *Licht. Nomencl.* p. 39 (1854).

Certhilauda rufula, *Sharpe, Cat. Afr. B.* p. 71 (1871); *Gurney, in Anders. B. Dam. Ld.* p. 201; *Sharpe, P. Z. S.* 1874, p. 618;
Ayres, Ibis, 1880, p. 264; *Sharpe, ed. Layard's B. S. Afr.* p. 490 (1884).

Alauda garrula, *Gieb. Thes. Orn.* i. p. 296 (1872).

Adult male. Above bright sandy rufous, with narrow and indistinct brown centres to the feathers, many of which are also margined with buffy white in a more or less conspicuous manner; the head of the same rufous as the back, with slight fulvous margins and small dark brown centres to the feathers; lores and a very indistinct eyebrow buffy white; ear-coverts uniform bright sandy rufous; cheeks buffy white, with a few tiny spots of brown; quills sandy brown, with white margins to the feathers, which are all dark brown in the centre, the greater coverts externally inclining to greyish; quills ashy brown, the primaries tipped with whitish, the secondaries darker, externally margined with sandy rufous, inclining to buffy white towards the tips of the feathers; rump and upper tail coverts nearly uniform rufous, the long plumes of the latter dark brown in the centre and narrowly tipped with whitish; tail blackish, with a large spot of white at the tip of all the feathers except the two centre ones, which are rufous, more or less marked down the centre with greyish brown, all the feathers more or less rufous towards the base, this colour sometimes extending for half the feather; the external rectrix narrowly margined on the outer web with buffy white; throat entirely white; rest of under surface of body bright sandy rufous, with a few more or less distinct white margins to some of the feathers, on the breast minutely spotted with dark brown; under wing-coverts pale sandy rufous, those on the edge of the wing slightly mottled with brown; "bill dasky brown, paler on the lower mandible and on the edges of the upper; tarsi and feet pale; iris dark hazel" (*T. Ayres*). Total length 6.1 inches, culmen 0.85, wing 3.7, tail 2.6, tarsus 1.15.

Adult female. Similar to the male in colour, but smaller and having a much shorter bill: "iris and bill somewhat lighter than in the male" (*T. Ayres*). Total length 5.5 inches, culmen 0.75, wing 3.5, tail 2.1, tarsus 1.05.

Young. Principally distinguished by its spotted plumage, the white margins to the feathers of the upper surface being rather spots than terminal margins, and being further discriminated by small subterminal black spots. Around the hind neck is a distinct shade of fulvous, almost forming a collar and much plainer than in the adult birds; the margins to the wing coverts very broadly and distinctly white; throat, lores, and a scarcely perceptible superciliary line white; rest of under surface pale sandy rufous, becoming gradually more fulvous on the abdomen; the breast slightly spotted with pale brown, the feathers margined with whitish.

In winter the young bird is very different, having very broad circular margins of white to all the feathers of the upper surface, with obscure brown central streaks, the under surface very pale and with scarcely any perceptible brown spots on the breast.

In 1871 I united *C. garrula* and *C. rufula* together; but on revising the facts in 1874 I came to the conclusion that they might be separated on the colour of their secondaries. I regret to find that the receipt of further specimens does not confirm this conclusion, and between the rufous birds of the Transvaal and the dark-

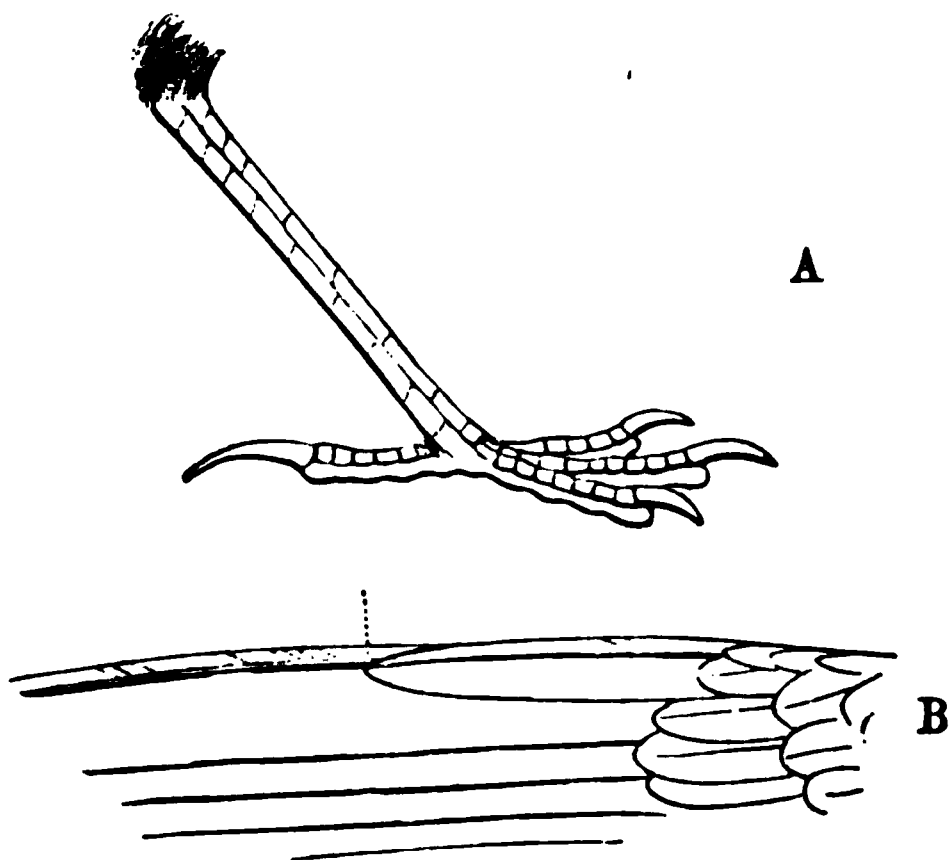
coloured birds of the Eastern Cape Colony there is a perfect gradation in the amount of rufous in the plumage, the very light-coloured birds from Great Namaqua-Land and Damara-Land being only the extreme rufous forms. The difference in depth of coloration probably depends upon the habitat of the birds themselves and the nature of the country they frequent.

Hab. The northern districts of the Cape Colony to Natal and the Transvaal on the east, and Great Namaqua-Land on the west.

| | | |
|---|--|---|
| <i>a.</i> Ad. sk. | South Africa. | E. Wilson, Esq. [P.] |
| <i>b, c.</i> Ad.; <i>d.</i> Juv. sk. | Northern Cape Colony. | Sir A. Smith [C.]
(Types of <i>C. garrula</i> .) |
| <i>e, f.</i> ♂ ad. sk. | Hope Town (<i>T. C. Atmore</i>). | Shelley Coll. |
| <i>g-i.</i> Ad. sk. | Colesberg (<i>Ortlepp</i>). | Sharpe Coll. |
| <i>k, l.</i> ♂ ad. sk. | Port Elizabeth, June, Aug.
(<i>Ortlepp</i>). | Sharpe Coll. |
| <i>m.</i> ♀ ad. sk. | Drakensburg Mts., Natal
(<i>Wahlberg</i>). | Sharpe Coll. |
| <i>n.</i> ♂ ad. sk. | Ingagane River, Natal, June 23
(<i>Savile Reid</i>). | Shelley Coll. |
| <i>o.</i> ♂; <i>p, q.</i> ♀ ad. sk. | Newcastle, May, June (<i>E. A. Butler</i>). | Shelley Coll. |
| <i>r.</i> Ad.; <i>s.</i> ♂ juv. sk. | Transvaal (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>t, u.</i> Ad. sk. | Rustenburg, E. Transvaal
(<i>W. Lucas</i>). | Shelley Coll. |
| <i>v-x.</i> ♂; <i>y, z, a', b'.</i> ♀ ad. sk. | Great Namaqua-Land, May, June
(<i>C. J. Andersson</i>). | Sharpe Coll. |

2. ALÆMON.

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| Alæmon, <i>Keys. u. Blas. Wirb. Eur.</i> p. xxxvi (1840) .. | Type.
A. <i>alaudipes</i> . |
| Calendulauda, <i>Blyth, J. A. S. Beng.</i> xxiv. p. 258 (1855) | A. <i>nivosa</i> . |



A. Foot of *Alæmon alaudipes*, to show hind toe.
B. Wing of *Alæmon alaudipes*, to show first primary.

Range. Desert districts of Southern Spain and the countries to the south of the Mediterranean basin, extending through North-eastern Africa to Arabia and thence to North-west India; Southern Africa.

Key to the Species.

- a. Size larger; bill longer; outer secondaries broadly tipped with white.
 - a'. Upper surface sandy buff, the inner secondaries sandy buff, like the back. *alaudipes*, p. 518.
 - b'. Upper surface ashy buff, greyer on the head, the inner secondaries ashy, with sandy buff edges. *desertorum*, p. 519.
- b. Size smaller; bill shorter; no white tips to the secondaries.
 - c'. Larger; culmen 0.75-0.95 inches; wing 3.7-4.4 inches: spots on breast small and thinly dispersed; under wing-coverts isabelline, as well as the inner web of the quills below. *semitorquata*, p. 521.
 - d'. Smaller; culmen 0.65-0.75 inches; wing 3.25-3.6 inches: spots larger and more pronounced. *nivosa*, p. 522.

1. *Alæmon alaudipes*.

Upupa alaudipes, *Desf. Mém. Acad.* 1787, p. 504.

Alauda bifasciata, *Licht. Verz. Doubl.* p. 27 (1823); *Temm. Pt. Col.* iii. pl. 393 (1826); *Cretzschm. in Rüpp. Atlas*, p. 8, Taf. 5 (1826); *Temm. Man.* iii. p. 199 (1835); *Werner, Atlas, Granivores*, pl. 3; *Math. Faun. Orn. Sicil.* p. 107 (1843); *Schl. Rev. Crit.* p. lviii (1844).

Certhilauda bifasciata, *Swains. Classif. B.* ii. p. 293 (1837).

Certhilauda desertorum (*nec Stanley*), *Rüpp. Neue Wirb., Vög.* p. 104 (1835-40); *Gray, Gen. B.* ii. p. 383 (1844); *Rüpp. Syst. Uebers.* p. 78 (1845); *Heugl. Syst. Uebers.* p. 43 (1856); *id. Ibis*, 1859, p. 343; *Tristr. Ibis*, 1859, p. 427; *Adams, Ibis*, 1864, p. 24; *Tristr. Ibis*, 1866, p. 289; *Degl. & Gerbe, Orn. Eur.* i. p. 355 (1867); *Loche, Expl. Sci. Algér., Ois.* ii. p. 43 (1867); *Heugl. Orn. NO-Afr.* i. p. 692 (1870, pt.); *Gray, Hand-l B.* ii. p. 121, 1871, p. 122.

base, the two outer ones only on the inner web; the secondaries white at the base and at the ends, leaving a broad band of dusky brown in the middle; the inner secondaries sandy buff, with ashy centres, resembling the inner greater coverts; centre tail-feathers sandy buff, with ashy-brown centres, the remainder blackish brown, edged with whity brown, the outer feather white along the outer web; all the tail-feathers with a concealed white base; crown of head like the back, but rather more ashy and with slight traces of reddish-brown centres to the feathers; lores, eyebrow, and sides of face and ear-coverts white, with a blackish streak behind the eye and another below the latter; cheeks, throat, and remainder of under surface of body white; sides of neck and sides of fore neck and chest light ashy grey; throat and chest spotted with black, the former minutely, the latter more largely marked; under wing-coverts and axillaries white. Total length 8·1 inches, culmen 1·15, wing 5·05, tail 3·3, tarsus 1·35.

Adult female. Similar to the male in colour, but scarcely so distinctly spotted on the breast. Total length 8·3 inches, culmen 1·25, wing 5·1, tail 3·4, tarsus 1·2.

In *summer plumage* the feathers become very much worn and abraded, and the spots on the chest very much more distinct, these spots being very much overshadowed in the winter dress. The spots are probably more developed with age, as a young male after the first moult has the spots very small and much concealed.

The Cape-Verde Island bird seems rather small and deeply coloured—wing 4·2 inches.

Young. Similar to the adults, but mottled with dusky bars and light edgings to the feathers; the broad edgings to the greater coverts and inner secondaries yellowish buff; under surface of body white, with a slight mottling of dusky spots on the fore neck.

Hab. Cape-Verde Islands to the Algerian Sahara and Tripoli, thence to Egypt and Nubia and perhaps the peninsula of Sinai.

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|---|--|-----------------------------|
| <i>a.</i> Ad. sk. | Cape-Verde Islands. | M. A. Bouvier [C.]. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Algeria (<i>Gregory</i>). | Gould Coll. |
| <i>d.</i> ♀ ad. sk. | Algeria (<i>Tristram</i>). | Salvin-Godman Coll. |
| <i>e, f.</i> Ad. sk. | Algerian Sahara. | Sharpe Coll. |
| <i>g.</i> ♂ ad.; <i>h, i.</i>
Juv. sk. | Algerian Sahara (<i>Loche</i>). | Shelley Coll. |
| <i>k.</i> Ad. sk. | Desert between Cairo and
Suez (<i>Von Heuglin</i>). | Sharpe Coll. |
| <i>l.</i> ♀ ad. sk. | Benisouef. | Dr. A. Leith Adams
[P.]. |

Subsp. *a.* *Alæmon desertorum*.

Alauda desertorum, *Stanley*, in *Salt's Exped. Abyss.* App. p. lx (1814).

Saxicola? *pallida* (*nec Rüpp.*), *Blyth*, *J. A. S. Beng.* xvi. p. 130 (1847).

Certhilauda desertorum, *Blyth*, *Cat. B. Mus. As. Soc.* p. 133 (1849); *Bp. Conspectus* i. p. 246 (1850); *Horsf. & Moore*, *Cat. B. Mus. E.I.*

- Co.* ii. p. 464 (1856); *Jerd. B. Ind.* ii. p. 438 (1863); *Blanf. Geol. & Zool. Abyss.* p. 385 (1870); *Hume, Str. F.* 1873, p. 216; *Dresser, B. Eur.* iv. p. 275 (1874, pt.); *Blanf. Eastern Persia*, ii. p. 240 (1876); *Butler, Cat. B. Sind &c.* p. 50 (1879); *Hume, Str. F.* 1879, p. 109; *Doig, Str. F.* ix. p. 281 (1880); *C. Swinh. Ibis*, 1882, p. 117; *Murray, Vertebr. Faun. Sind*, p. 199 (1884); *Sharpe, Trans. Linn. Soc., Zool.* v. p. 82 (1889); *St. John, Ibis*, 1889, p. 173.
- Certhilauda doria*, *Salvad. Atti R. Accad. Torino*, iii. p. 202 (1867).
- Certhilauda salvini* (*nec Tristr.* 1859), *Tristr. Ibis*, 1869, p. 435.
- Alaemon desertorum* (*nec Stanl.*), *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 692 (1870, pt.); *Yerbury, Ibis*, 1886, p. 18.
- Alaemon jessie*, *Finsch, Trans. Z. S.* vii. p. 273 (1870); *id. & Hartl. Vög. Ostaf.* p. 465 (1870).
- Certhilauda jessie*, *Gray, Hand-l. B.* ii. p. 121, no. 7795 (1870).
- Alaemon desertorum* (*nec Stanley*), *Keys. u. Blas. Wirb. Eur.* p. xxxvi (1840); *Muhle, Orn. Griechenl.* p. 34 (1844); *Cab. Mus. Hein. Th.* i. p. 126 (1850); *Linderm. Vög. Griechenl.* p. 47 (1860).
- Certhilauda meridionalis*, *A. E. Brehm, J. f. O.* 1854, p. 77, note.
- Certhilauda salvini*, *Tristr. Ibis*, 1859, p. 67.
- Certhilauda alaudipes*, *Dresser, B. Eur.* iv. p. 273 (1881); *Hornby, Ibis*, 1883, p. 124.

Adult male. Much more ashy isabelline than the Algerian birds and not nearly so sandy, the inner secondaries being brownish, with sandy margins: "bill variable, sometimes pale plumbeous, sometimes pale alaty grey, darker at base and tip, and sometimes horny grey or greenish grey, in all cases whitish at base of lower mandible; legs and feet pure china white, greyish on claws; iris brown" (*A. O. Hume*). Total length 9·3 inches, culmen 1·2, wing 5·1, tail 3·6, tarsus 1·2.

Adult female. Similar to the male in colour. Total length 8·3 inches, culmen 1, wing 4·75, tail 3, tarsus 1·2.

Hab. Abyssinian coast to Somali-Land; Arabia, Persia, and the coast-lands of the Indian Ocean, as far as Afghanistan, Cutch, and Sind.

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| <i>a, b.</i> Ad. sk. | Zoulla, Abyssinia, June (<i>W. Jesse</i>). | Tweeddale Coll.
(Types of <i>A. jessie</i> .) |
| <i>c, d.</i> ♂ ♀ ad. sk. | Zoulla, June (<i>W. J.</i>). | Sharpe Coll. |
| <i>e, f.</i> Ad. sk. | Zoulla, Jan. | W. T. Blanford, Esq. |

| | | |
|---------------------------------|---------------------------------------|------------|
| <i>v, w.</i> Ad. sk. | Upper Sind, Jan. (<i>A. O. H.</i>). | Hume Coll. |
| <i>x-i'.</i> ♂; <i>k'-m'.</i> ♀ | Sind, Dec., Jan., Feb. (<i>A.</i> | Hume Coll. |
| ad. sk. | <i>O. H.</i>). | |
| <i>n'-p'.</i> Ad. sk. | West of Kotri, Nov., Dec. | Hume Coll. |
| <i>q'.</i> Ad. sk. | Cutch. | Hume Coll. |

2. *Alæmon semitorquata*.

- Certhilauda semitorquata*, *Smith, Rep. Exped. Centr. Afr.* p. 47 (1836); *Gray, Gen. B.* ii. p. 383 (1844); *Smith, Ill. Zool. S. Afr.* pl. 106. fig. 2 (1846); *Bp. Consp.* i. p. 246 (1850); *Mont. P. Z. S.* 1865, p. 94; *Layard, B. S. Afr.* p. 216 (1867); *Gray, Hand-l. B.* ii. p. 120, no. 7790 (1870); *Sharpe, Cat. Afr. B.* p. 71 (1871); *Gurney, in Anderss. B. Dam. Ld.* p. 201 (1871); *Buckley, Ibis*, 1874, p. 383; *Sharpe, in Oates' Matabele-Land*, App. p. 317 (1881).
Certhilauda rufopalliata, *Lafr. Mag. de Zool.* 1836, Ois. pl. 59; *Gray, Gen. B.* ii. p. 383 (1844).
Certhilauda subcoronata, *Smith, Ill. Zool. S. Afr., Aves*, pl. 90. fig. 2 (1843); *Bp. Consp.* i. p. 246 (1850); *Scl. P. Z. S.* 1866, p. 23; *Layard, B. S. Afr.* p. 217 (1867); *Gray, Hand-l. B.* ii. p. 121, no. 7793 (1870).
Chersomanes subcoronata, *Cab. Mus. Hein.* Th. i. p. 126 (1850).
Alæmon rufopalliata, *Licht. Nomencl. Av.* p. 39 (1854).
Certhilauda coronata, *Layard, Ibis*, 1869, p. 371.
Alauda semitorquata, *Giebel, Thes. Orn.* p. 300 (1872).
Alauda subcoronata, *Giebel, t. c.* p. 301 (1872).
Alæmon semitorquata, *Sharpe, P. Z. S.* 1874, p. 620; *id. ed. Layard's B. S. Afr.* p. 499 (1884).

Adult female in summer plumage. General colour above clear vinous brown, with distinct black stripes, the hind neck indistinctly ashy grey; lower back and rump the same as the rest of the upper surface, and streaked in the same manner; upper tail-coverts dark brown with rufescent margins; upper wing-coverts and quills dark brown, with broad rufous margins; ear-coverts deep rufous, with slight rufous shaft-streaks; cheeks and throat white, with a few black spots; under surface of body isabelline, with a tinge of vinous on the flanks; the breast broadly streaked with black; under wing-coverts deep isabelline vinous. Total length 6.9–7.3 inches, culmen 0.75–0.8, wing 3.7–3.75, tail 3.05–3.2, tarsus 1.0–1.1.

The *adult female in winter plumage* differs from the summer plumage in being sandy isabelline, with fulvous margins to most of the dorsal feathers; the head and interscapular region with small black shaft-stripes; hind neck decidedly ashy grey, contrasting with the head; lower back and rump entirely uniform isabelline, with no shaft-streaks; upper tail-coverts light ash-colour, paler than the tail, and margined with whitish; upper wing-coverts and quills brown, broadly margined with pale sandy, shading off into white on the margins; ear-coverts very pale sandy; cheeks and throat pure white, unspotted; under surface of body white, with a few triangular spots of dusky black on the throat; under wing-coverts very pale isabelline sand-colour.

The male is like the female in plumage, but is larger, and has

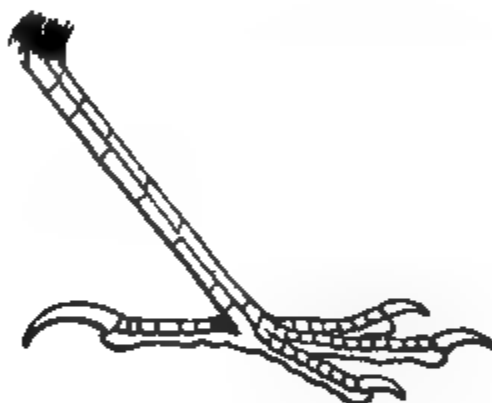
edgings, the sides of the body more sparsely mottled on the flanks, where, however, the spots are still rounded.

Hab. Interior of the Cape Colony to Namaqua-Land.

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|------------------------------|--|---|
| <i>a.</i> Ad. sk. | Cape Colony (<i>E. L. Layard</i>). | Sharpe Coll. |
| <i>b, c.</i> Ad. et imm. sk. | "Karoo Plains between the Oliphant and Orange Rivers." | Sir A. Smith [C.]
(Types of <i>A. codea</i> .) |
| <i>d, e.</i> Ad. sk. | "Between the Berg and Orange Rivers." | Sir A. Smith [C.]
(Types of <i>A. lagepa</i> *.) |
| <i>f-h.</i> Ad. sk. | Berg River (<i>E. L. Layard</i>). | Sharpe Coll. |
| <i>i-l.</i> Ad. et juv. sk. | Karoo (<i>E. L. Layard</i>). | Salvin-Godman Coll. |
| <i>m.</i> Ad. sk. | Swellendam (<i>E. L. Layard</i>). | Salvin-Godman Coll. |
| <i>n.</i> Ad. sk. | Cape Town (<i>Butler</i>). | Sharpe Coll. |
| <i>o, p.</i> ♂ ♀ ad. sk. | Grootberg, Little Namaqua-Land, July 29 (<i>C. J. Anderson</i>). | Sharpe Coll. |

3. HETEROCORYS.

Heterocorys, *Sharpe*, *P. Z. S.* 1874, p. 625 Type. *H. breviunguis*.



Foot of *Heterocorys breviunguis*, to show hind claw.

Range. Confined to South Africa.

1. *Heterocorys breviunguis*.

Alauda breviunguis *Sunder.* (*Cic. K. Vrt. Alaud. Fork. Stockh.* 1850.)

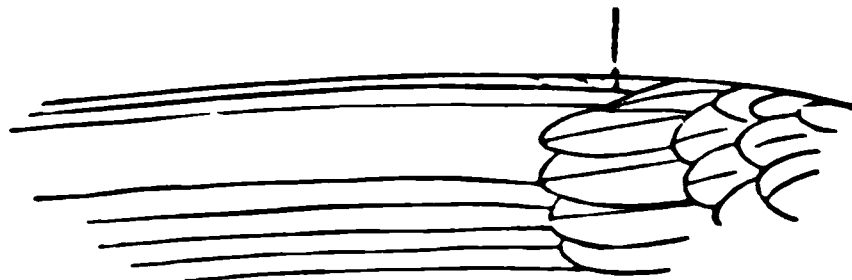
Adult male. Above rufous fawn-colour, the margins of the dorsal plumes paler and more fulvescent, with broad centres of blackish brown; the head slightly crested and coloured like the back, the hind neck more greyish and somewhat separating the head from the back by an indistinct collar; wing-coverts coloured like the back, dark brown, with broad fulvescent margins, causing a somewhat mealy appearance; quills brown margined with fulvous fawn-colour, very broad on the secondaries and paler in the outer edges; lower back, rump, and upper tail-coverts bright rufous fawn-colour with narrow blackish shaft-lines, broader on the last-named; tail-feathers brown, bordered with fulvous, a little broader on the outermost feather and more rufous on centre ones, which are shaded with ashy; lores and a distinct eyebrow fulvous white, tinged with fawn; ear-coverts rufous fawn, inclining to dark brown on their upper margin; cheeks fulvous white, with a few spots of dark brown; under surface of body isabelline buff, the throat unspotted; the flanks and chest washed with fawn-colour, the latter marked with a good many triangular spots of dark brown; under wing-coverts light fawn-colour, the outermost spotted with brown, the greater series ashy brown like the inner lining of the wing, which is almost entirely of the latter colour, with a tinge of isabelline on the inner web: bill horn-brown, inclining to yellowish horn-colour at base. Total length 6·8 inches, culmen 0·8, wing 4, tail 3·1, tarsus 1·1.

Hab. Interior of the Cape Colony to the Transvaal.

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| <i>a, b.</i> Ad. sk. | Interior of Cape Colony. | Sir A. Smith [C.]. |
| <i>c.</i> ♂ ad. sk. | Transvaal, April 16 (<i>J. Wahlberg</i>). | Sharpe Coll. |

4. CHERSOPHILUS.

Certhilauda, pt., *auct. recent.*



Wing of *Chersophilus duponti*, to show short first primary.

Range. Algeria, Southern Spain, and Portugal.

Key to the Species.

- a.* Larger; wing 4·0 inches: general colour sandy brown, the upper tail-coverts like the rump; throat and chest sparsely streaked with brown; scarcely any streaks on the flanks *duponti*, p. 528.

- b. Smaller; wing 3.85 inches: general colour grey with broad white margins to the wing-coverts and intercapillary region; throat, breast, and flanks strongly streaked with blackish brown . . . *lusitanicus*, p. 527.

1. *Chersophilus duponti*.

Alauda duponti, Vieill. *Faun. Franç.* p. 173, pl. 76. fig. 2 (1820); *Keys u. Blas. Wirb. Eur.* p. xxxvi (1840); *Bres, B. Eur.* ii. p. 184 (1867).

Certhilauda duponti, Temm. *Man. d'Orn.* pt. iii. p. 198 (1835); *Bp. Cat. Met. Ucc. Eur.* p. 31 (1843); *Gray, Gen. B.* ii. p. 383 (1844); *Bp. Consp.* i. p. 246 (1850); *Tristr. Ibis*, 1859, p. 427; *Degl. & Gerbe, Orn. Eur.* i. p. 356 (1867); *Loche, Expl. Sci. Alger, Orn.* ii. p. 42 (1867); *Gray, Hand-l. B.* ii. p. 120, no. 7789 (1870); *Dresser, B. Eur.* iv. p. 279, pl. 227 (1873); *Saunders, Bull. Soc. Zool. France*, ii. p. 91 (1877); *Salvad. Elench. Ucc. Ital.* p. 159 (1886).

Galerita duponti, *Jaub. & Barth.-Lapommi. Rich. Orn.* p. 289 (1859).
Alaemon margaritæ, *Koenig, J. f. O.* 1888, p. 228, pl. ii.

Adult. General colour above sandy brown, with dark brown or blackish centres to the feathers of the mantle and back, some of them with whitish edges; wing-coverts and quills light sandy brown, edged with isabelline; primaries dusky brown, with ashy isabelline margins; inner secondaries dark brown, with lighter brown or whitish edges and with a white shaft-line, very distinct; lower back, rump, and upper tail-coverts ashy isabelline, with dusky brown centres; centre tail-feathers sandy brown, with blackish-brown centres and conspicuous white shafts; remainder of the feathers dark brown, edged with lighter brown, the penultimate one with white; the outer tail-feather for the most part white, with an oblique mark of brown on the inner web, the shaft brown towards the ends; crown of head like the back, and similarly mottled, the centre feathers edged with white, forming a streak; hind neck more hoary, greyish white, mottled with black centres to the feathers; the sides of the neck white, with scarcely any blackish spots; lores and a narrow eyebrow, as well as the feathers below the eye, sandy white; ear-coverts dark brown, with a sandy wash; cheeks white, spotted and streaked with black; a line along the lower cheeks and the throat white, separated by a dusky streak; the lower throat minutely spotted with dark brown, increasing in size on the fore neck and chest, and still more on the sides of the breast; the latter slightly washed with rufous; entire abdomen, thighs, and under tail-coverts isabelline white; sides of body and flanks strongly washed with isabelline brown, and slightly streaked with darker brown; under wing-coverts isabelline white, the axillaries ashy with hoary margins; quills dull ashy below, isabelline along the inner webs: "bill black; feet reddish; iris brown" (*Loche*). Total length 6.6 inches, culmen 0.8, wing 4, tail 2.4, tarsus 0.95.

The Spanish bird, which has always been identified with the Algerian *C. duponti*, seems to be different, but I have only been able

to examine three specimens from Malaga, all in winter plumage. These Malaga specimens are smaller than the Algerian, and are not so uniform in colour, having a reddish hind neck and mantle, and also reddish upper tail-coverts; the back and wing-coverts are very conspicuously edged with whitish, imparting a peculiar scaly appearance, which is not seen in the Algerian bird as a rule; the throat and chest are very distinctly streaked with black, these black streaks having a lateral tinge of reddish on the chest. Total length 6·5 inches, culmen 0·8, wing 3·6, tail 2·1, tarsus 0·85.

I should have decided to keep the Spanish bird distinct as a subspecies on account of its scaled appearance, had not Canon Tristram lent me an Algerian specimen, which had slightly developed white margins to the dorsal feathers, so that these edgings may, after all, only be signs of winter plumage

Hab. Algerian and Southern Spain.

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|--------------|--|---------------------|
| a. ♀ ad. sk. | Malaga, Spain, Oct. 31 (<i>H. Saunders</i>). | Tweeddale Coll. |
| b. Ad. sk. | Algeria (<i>Loche</i>). | Salvin-Godman Coll. |
| c. Ad. sk. | Algeria. | Capt. Loche [C.]. |

Subsp. α. *Chersophilus lusitanicus*.

Certhilauda duponti, var. *lusitanica*, *Bocage, Journ. Lisb.* 1887, p. 214.

Adult female (type of species). Smaller than *C. duponti*, but greyish instead of sandy colour, the feathers of the back and wings rather broadly edged with white, imparting a scaly appearance; the throat, breast, and sides of body very broadly streaked with blackish brown. Total length 5·5 inches, culmen 0·85, wing 3·85, tail 2·4, tarsus 1·05. (*Mus. Lisb.*)

Hab. Portugal.

5. RHAMPHOCORYS.

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| Rhamphocorys, <i>Bp. C. R.</i> xxxi. p. 423 (1850) | Type.
R. clot-bey. |
| <i>Ierapterhina</i> , <i>Des Murs & Lucas, Rev. et Mag. de Zool.</i> 1851, p. 24 | R. clot-bey. |

Range. Deserts of Lybia and Algeria.

1. *Rhamphocorys clot-bey*.

Melanocorypha clot-bey, *Bp. Consp.* i. p. 242 (1850, *ex Temm. MSS. in Mus. Lugd.*); *Gray, Hand-l. B.* ii. p. 120, no. 7787 (1870).

Ramphocorys clot-bey, *Bp. C. R.* xxxi. p. 423 (1850), xxxviii. p. 66 (1854); *Tristr. Ibis*, 1859, p. 424; *Homeyer, J. f. O.* 1863, p. 268; *Loche, Expl. Sci. Algér., Ois.* ii. p. 32 (1867); *Taczan. J. f. O.* 1870, p. 41; *Shelley, B. Egypt*, p. 144 (1872); *Dresser, B. Eur.* iv. p. 383, pl. 24 b (1873).

Ierapterhina cavaignacii, *Des Murs et Lucas, Rev. et Mag. de Zool.* 1851, p. 24, pl. 1.

Alauda clot-bey, *Malh. Faun. Orn. d'Algér.* p. 21 (1855).

Hierapterhina clot-bekii, *Heuglin, J. f. O.* 1868, p. 220; *id. Orn. N.O.-Afr.* ii. p. 673 (1870), iv. p. cxlviii (1871); *Homeyer, J. f. O.* 1873, p. 187.

Adult. General colour above uniform isabelline brown, with a few dusky shaft-lines on the feathers of the crown, faint traces of similar lines being visible on the scapulars and feathers of the lower back; wings a little more sandy than the back, the median and greater coverts dark brown, edged with sandy buff, whitish on the extreme margins; bastard-wing blackish brown; primary-coverts and quills blackish brown, externally ashy brown, the long primaries edged with white, all the quills tipped with sandy buff, the inner secondaries broadly edged and tipped with this colour; outer secondaries very broadly banded with white at the ends; upper tail-coverts white, with a tinge of sandy buff; centre tail-feathers dark brown, edged with sandy buff; the remainder for the most part white, blackish towards their ends, forming a broad band, which diminishes in extent towards the outer feathers; lores isabelline; feathers above the eye blackish, as well as the sides of the face; the feathers immediately above the eye white, with a larger mark below the latter; the black overspreads the ear-coverts, which are sandy buff behind; fore part of cheeks white, as well as a mark on the hinder cheeks, separated by a band of black which traverses the cheeks and joins the black on the sides of the throat, which is white; remainder of under surface of body white, thickly mottled with large ovate centres of black on the feathers, which render the abdomen almost entirely black, except for a few fringes of isabelline to the feathers; the flanks and thighs vinous isabelline with dusky centres to the feathers; lower abdomen, thighs, and under tail-coverts white, tinged with isabelline; under wing-coverts and axillaries ashy black, narrowly fringed with whitish, more distinctly on the edge of the wing; quills dusky below, ashy along the inner edge of the wing. Total length 7 inches, culmen 0·7, wing 5·1, tail 2·4, tarsus 0·9.

Hab. The same as that of the genus.

a, b. Ad. sk.

Algerian Sahara.

Purchased.

6. OTOCORYS.

| | Type. |
|---|-----------------------|
| <i>Eremophila</i> , Boie, <i>Isis</i> , 1828, p. 322 (<i>nec</i> Humb. 1805) . . . | <i>O. alpestris</i> . |
| <i>Phileremos</i> , Brehm, <i>Vög. Deutschl.</i> p. 321 (1831, <i>nec</i> Latr. 1800) | <i>O. alpestris</i> . |
| <i>Otocoris</i> , Bp. <i>Nuovi Ann. Sci. Nat. Bologna</i> , ii. p. 407 (1838) | <i>O. alpestris</i> . |
| <i>Philamnis</i> , Gray, <i>List Gen. B.</i> 1840, p. 47 | <i>O. alpestris</i> . |
| <i>Otocoryx</i> , Licht. <i>Nomencl.</i> p. 38 (1854) | <i>O. alpestris</i> . |
| Cf. Seebohm, <i>Ibis</i> , 1884, p. 184; Henshaw, <i>Auk</i> , i. p. 254. | |

Range. The northern portions of the old and new worlds, extending to Mongolia, the Himalayas, and throughout the Mediterranean-Persic subregion. In America it extends to Mexico and reoccurs in the neighbourhood of Bogota.

Mr. W. H. Henshaw has given in the 'Auk' for 1884 an elaborate review of the Horned Larks of the New World, and has divided them into eight races (vol. i. pp. 254-268). Mr. Ridgway in his 'Manual' (pp. 348, 349) has also tabulated these same races and adopted Mr. Henshaw's conclusions. Thanks to the liberality of Mr. Godman, the whole of Mr. Henshaw's series of these birds has been acquired for the Salvin-Godman collection and now forms part of the British-Museum collection, so that I have had the inestimable advantage of studying the very specimens on which Mr. Henshaw and Mr. Ridgway founded the bulk of their conclusions. Anything more puzzling than these races of Horned Larks it has never been my lot to describe. The differences between *O. alpestris* and *O. rubea* are as well marked as could be wished, but between these two extreme forms are interposed a number of races which seem absolutely to connect them, and both the above-named American authors admit that these connecting-links actually exist.

To unite all the races under the heading of *O. alpestris* would be to obscure the existence of several highly interesting geographical forms, and I have therefore thought it best to recognize the races determined by Mr. Henshaw and confirmed by Mr. Ridgway, with certain notes of my own upon the series now lying before me.

I have drawn my characters from specimens in autumn and winter plumage, as the Horned Larks are birds which gain their breeding-plumage by the shedding of the light tips to the feathers, and therefore the autumn plumage is the most perfect before the feathers become abraded.

In summer plumage the races are still more difficult to distinguish, and size is the best test of identification. The yellow on the forehead and eyebrow becomes obliterated in nearly every species, even in *O. alpestris*. Two groups can be recognized when a series of all the species is available for comparison. The large *O. alpestris* is the type of one section, with pale primrose-yellow throat, *O. leucoloma* being a western white-throated representative, and *O. praticola* and *O. arenicola* being more southern resident forms. In the "*rubea*" group the size is constantly smaller, the colours in stronger contrast, the vinous colour more richly indicated and even inclining to chestnut, while the yellow of the throat is richer in colour. All the southern races, however, are very difficult to define, and they seem to run one into the other.

Key to the Species.

a. No yellow on the chest.

a'. Eyebrow white; forehead also white.

a''. Cheeks white; throat white or with a faint tinge of yellow.

a'''. Back perfectly uniform or with slender streaks of black.

a⁴. Black throat-band united to the black ear-coverts $\left\{ \begin{array}{l} \textit{penicillata}, \text{ p. 530.} \\ \textit{bicornis}, \text{ p. 532.} \\ \textit{pallida}, \text{ p. 533.} \end{array} \right.$

- b*⁴. Black throat-band distinctly separated from the black ear-coverts by a broad white interspace
*a*⁵. Head and neck more vinous than the back, which is lighter ochraceous or ashy *choesi* and allies, [pp. 533-536].
*b*⁵. Head and neck exactly like the back, all the upper surface being of a bright sandy colour..... *bilopha*, p. 537.
*b*⁶. Back coarsely streaked with broad black centres to the feathers.
*c*⁴. Cheeks white; throat white with a faint tinge of yellow sometimes.
*c*⁵. Larger; wing 4·0-4·65 inches ... *leucolama*, p. 538.
*d*⁵. Smaller; wing 3·7-4·3 inches *praticola*, p. 539.
*b*⁶. Cheeks pale primrose-yellow, like the throat *arenicola*, p. 540.
δ. Eyebrow yellow; forehead yellow, like the cheeks and throat.
*σ*¹. Size larger; wing 4·4 inches: chest slightly mottled with dusky tips to the feathers in winter *alpestris*, p. 542.
*σ*². Size smaller; wing 3·9 inches: chest with scarcely any sign of dusky tips to the feathers in winter *chrysolama*, p. 546.
*σ*³. Size smaller; wing 3·7 inches: chest obscured by blackish edges to the feathers, head and back broadly streaked with black *peregrina*, p. 548.
b. With yellow on the chest.
c. Yellow colour confined to the chest.
*f*¹. With scarcely any dusky edges to the feathers of the chest *rubea**, p. 548.
*g*¹. Chest thickly mottled with blackish edges to the feathers *giraudi*, p. 549.
d. Yellow colour tinging the breast and abdomen. *strigata*, p. 549.

1. *Otocorys penicillata*.

Alauda alpestris (nec L.). *Mémoire Cat. rais.* (Cauc. p. 38 (1832);

Ibis, 1882, p. 116; *Seebohm*, *t. c.* p. 217; *Biddulph*, *t. c.* p. 285; *Seebohm*, *Ibis*, 1883, p. 11; *Dresser*, *Ibis*, 1889, p. 91; *St. John*, *t. c.* p. 173.

Phileremos scribe, *Bp. Comp. List*, p. 37 (1838).

Otocoris scribe, *Bp. Consp.* i. p. 246 (1850); *Gray*, *Hand-l. B.* ii. p. 117, no. 7736 (1870).

Otocoris albigula, *Bp. Consp.* i. p. 246 (1850); *Degl. & Gerbe*, *Orn. Eur.* i. p. 348 (1867).

Otocorys bilopha (*nec Temm.*), *Cab. & Heine*, *Mus. Hein.* i. p. 122 (1850).

Otocoris larvata, *Filippi*, *Arch. Zool. Anat. etc.* ii. p. 382 (1863); *id.* *Viagg. Pers.* p. 348 (1865); *Salvad. Atti R. Accad. Torino*, iii. p. 295 (1867); *Gray*, *Hand-l. B.* ii. p. 117, no. 7743 (1869); *Schalow*, *J. f. O.* 1876, p. 183.

Adult male in winter plumage. General colour above ashy with a slight ochreous tinge, and with slight indications of dusky blackish streaks on the lower back; the upper tail-coverts marked with vinaceous and centred with dusky; lesser wing-coverts vinous ashy; the median and greater series as well as the primary-coverts dusky, edged externally with ashy, whitish on the margins, the inner greater coverts and inner secondaries externally sandy brown, the outer primary white along its outer web; centre tail-feathers ashy with more or less of a sandy tinge near the base, the centres dark brown; remainder of the tail-feathers black, the penultimate one edged with white, the outermost white along the outer web; crown of head like the back and slightly tinged with vinous like the hind neck; the forehead yellowish ashy, the black frontal band and the feathered horns obscured by dusky ashy margins; eyebrow pale sulphur-yellow; nasal plumes, lores, and extreme base of forehead, as well as the sides of the face, black, more or less obscured with yellowish tips to the feathers; cheeks and throat pale sulphur-yellow; lower throat and a broad band on the fore neck black, obscured with yellowish margins to the feathers and joined to the black on the ear-coverts; remainder of under surface of body dull white, with ashy tips to the feathers of the chest; sides of body and thighs washed with pale vinous; under wing-coverts and axillaries white; quills ashy below, white along the inner webs: "bill blackish above, bluish grey below; tarsi and upper surface of toes black, claws black, soles of feet whitish; iris deep reddish brown" (*W. T. Blanford*). Total length 7.4 inches, culmen 0.6, wing 4.75, tail 3, tarsus 0.9.

The summer plumage is gained by the shedding of the pale tips to the plumage, and as this process progresses the black band on the crown and the feathered horns, as well as the white forehead and eyebrows, become visible, and the black of the face and throat is at once strongly developed; the hinder crown and hind neck become entirely vinaceous, in contrast to the grey back, in which the blackish centres to the feathers are well pronounced.

Adult female. Wants the black band across the crown, the head and back being very distinctly streaked with blackish brown; the whole general appearance of the bird more dusky than in the

male. Total length 6 inches, culmen 0·6, wing 4·2, tail 2·6, tarsus 0·85.

Hab. From Asia Minor to the Caucasus and through Persia to Ferghana and Afghanistan, and thence to the Gilgit district.

| | | |
|------------------------------|--|----------------------|
| a. ♂ ad. sk. | Taurus, Asia Minor, April 30
(C. G. Danford). | Salvin-Godman Coll. |
| b. ♂ ad. sk. | Taurus, April 30 (C. G. D.). | Seebohm Coll. |
| c, d. ♂ ad. sk. | Erzeroum (K. E. Abbott). | Zoological Society. |
| e-g. ♂ ad. sk. | Erzeroum. | Gould Coll. |
| | | (Types of species.) |
| h. ♂ ad. hiem. sk. | Kislovodak, Cis-Caucasia. | St. Petersburg Mus. |
| | | [E.] |
| i. Ad. hiem. sk. | Near Isfahan, Persia, Sept. | Sir O. St. John [C.] |
| k, l. ♂ ♀ ad. sk. | Hanaka, S.S.E. of Karmán,
S.E. Persia, May 2. | W. T. Blanford, Esq. |
| | | [C.] |
| m, n. ♂ ♀ ad. sk. | Candahar, Jan. 25. | Colonel Swinhoe |
| | | [P.] |
| o, p. ♂ ♀ ad. sk. | Gilgit, 5000 feet, March. | Colonel Biddulph |
| | | [C.] |
| q, r, s. ♂ ; t. ♀
ad. sk. | Gilgit, Feb. March (J.
Biddulph). | Hume Coll. |
| u. ♂ juv. sk. | Chashi, Yassin, 10,500 feet,
Aug. | Colonel Biddulph |
| | | [C.] |
| v. Imm. sk. | Wakhan, April 29 (J. Bid-
dulph). | Hume Coll. |
| w, x. ♂ ♀ ad. sk. | Ferghana, April, Nov. | Dr. Severtzow [C.] |

Subsp. a. *Otocorys bicornis* *.

Otocoryx bilopha (nec T.), *Licht. Nomencl. Av.* p. 38 (1854).

Otocorys penicillata, *Tristr. Ibis*, 1866, p. 288; *id. Faun. & Flor. Palest.* p. 81 (1884).

Adult male. Similar to *O. penicillata*, but much paler and more vinaceous, the vinous shade extending over the back, which is almost uniform. Total length 7-7·2 inches, culmen 0·65-0·7, wing 4·4-4·5, tail 2·7-2·9, tarsus 0·8-0·6.

Adult female. Differs from the male in wanting the black band on the crown, which is streaked with blackish brown like the back. Total length 6·5-7 inches, culmen 0·65-0·7, wing 4-4·1, tail 2·5-

Subsp. β *Otocorys pallida*.

Otocorys penicillata (*nec Gould*), *Severtz. J. f. O.* 1875, p. 191; *Scully, Str. F.* 1876, p. 174; *Dresser, Ibis*, 1876, p. 181; *Severtz. Ibis*, 1883, p. 61.

Adult male. Similar to *O. penicillata*, but very much paler, the vinous tints being of a delicate lilac, the back washed with sandy ochraceous and very narrowly streaked with blackish: "bill bluish horny, blackish towards the tip, the lower mandible paler; feet horny black; iris brown" (*F. Stoliczka*). Total length 6·8–7·3 inches, culmen 0·6, wing 4·5–4·8, tail 2·95–3·25, tarsus 0·9.

Hab. Central Asia.

| | | |
|---|---|----------------------------|
| <i>a.</i> Ad. sk. | Yarkand (<i>Col. Chapman</i>). | R. B. Sharpe, Esq.
[P.] |
| <i>b, c.</i> Ad. sk. | Yarkand (<i>J. Biddulph</i>). | Hume Coll. |
| <i>d, e.</i> Ad. sk. | Karghalik, Oct. 24. | Rev. Dr. Lansdell
[P.] |
| <i>f.</i> ♂ ad. sk. | Karghalik, Nov. 5 (<i>J. Biddulph</i>). | Hume Coll. |
| <i>g-m.</i> Ad. sk. | Kashgar (<i>Dr. Bellew</i>). | India Museum [P.] |
| <i>n, o.</i> ♂ ♀ ad. sk. | Kashgar, Dec. (<i>J. Biddulph</i>). | Seebohm Coll. |
| <i>p, q.</i> ♂ ♀ ad. sk. | Kashgar, Oct. 23 (<i>J. Scully</i>). | Hume Coll. |
| <i>r.</i> ♂ ad.; <i>s, t.</i>
♂ ♀ juv. sk. | Turkestan, Sept. Oct. | Dr. Severtzoff [C.] |
| <i>u.</i> ♂; <i>v, w.</i> ♀
ad. sk. | Ferghana, Oct., Nov. | Dr. Severtzoff [C.] |

Otocorys elwesi and its allies.

Elwes's Horned Lark is easily distinguished from *O. penicillata* by the white space which separates the black of the fore neck from the black of the ear-coverts. Care must be taken in searching for this character, as in many badly-preserved skins the white interspace is not distinctly traceable, if the feathers of the neck should happen to be forced up on the throat.

O. elwesi was described by Mr. Blanford from Sikhim, and I have examined a large series from this country in the Hume collection. Unfortunately they are prepared by Mr. Mandelli's collectors, and though good skins, they are none of them provided with particulars of sex. This is a very important matter in Larks, where the males are so much bigger, as a rule, than the females. Fortunately, in the Horned Larks the absence of black across the forehead enables us to tell the females from the males.

Mr. Seebohm in the 'Ibis' for 1884 (*l. c.*) has shown that the three races *O. longirostris*, *O. elwesi*, and *O. brandti*, run one into each other, and that it is difficult to draw the line between them. This is quite true; but arguing from an examination of a large series, I think that three races can be recognized with a tolerably well-defined range to each; though I admit that the connecting-links between them may be found.

2. *Otocorys elwesi*.

Otocorys penicillata (nec Gould), *Hodgs. Icom. ined. in Bibl. Soc. Zool.* v. pl. 703 (no. 9638); *H. Raf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 469 (1856, pt.)*, *Swinh. P. Z. S.* 1862, p. 318, *Jerdon, B. Ind.* ii. p. 431 (1863).

Otocorys alpestris (nec L.), *Swinh. P. Z. S.* 1863, p. 272.

Otocorys sibinica, *Everm. (ubi?)*; *Swinh. P. Z. S.* 1871, p. 390; *David & Gust. Orn. Chine*, p. 316 (1877).

Otocorys elwesi, *W. Blanford, J. A. S. Beng.* 1872, p. 62; *id. Ibis*, 1873, p. 213; *Hume, Str. P.* 1873, p. 213; *Severtz. Ibis*, 1883, p. 61.

Otocorys longirostris (nec Moore), *Hume & Henderson, Lahore to Yarkand*, p. 267 (1873); *Dresser, Ibis*, 1876, p. 181.

Otocorys nigrifrons, *Prjev. Mong. & Thibet*, ii. p. 103 (1876).

Otocorys teleschowi, *Prjev. Ibis*, 1887, p. 416.

Adult male in winter plumage. Similar to *O. penicillata*, but distinguished by the white on the sides of the neck, which forms a band separating the black of the fore neck from the black ear-coverts. The bill is very long and slender, and has a yellowish base to the lower mandible. On some few specimens a tinge of yellow is visible on the forehead. The chest has some dusky spots or edges.

In *breeding-plumage* the whole of the pale edgings to the feathers wear off and the black line on the base of the forehead, which never seems to be entirely absent even in winter, becomes strongly pronounced and is followed by a broad white frontal band which joins the eyebrow, and is itself followed by another broad black band, extending backwards into the elongated hornlets above the white supercilium. The feathers at the base of the bill and the nasal plumes become so much abraded that the bill looks longer and more slender in breeding-plumage than it does in winter.

In a series of male birds from Sikkim and Thibet, collected by Maddelli, the length of the culmen is 0.5-0.6 inch, and the wing 4.5-4.75 inches. In the females from the same localities the culmen measures 0.45-0.6 inch, and the wing 4-4.4 inches.

The *female* differs from the male in wanting the black on the crown and base of forehead, the nasal plumes being dusky brown, and the crown streaked with black; but the white frontal band is very distinct and broad. The black band on the fore neck is very small.

The *young birds* are mottled after the manner of Horned Larks, and I believe that after the first moult into winter plumage there is no trace of a white forehead or black gorget, the latter being replaced by a few streaks of black.

The series of skins from the Prjewalski collection presented to the Museum by Mr. Seeborn is of the highest interest, comprising specimens determined by Colonel Prjewalski as *O. albigula* and as *O. nigrifrons*, Prj. The latter have certainly a little more black at

* The Nepalese specimens recorded in this Catalogue were no longer in the India Museum when the collection was landed over to the British Museum in 1881.

the base of the forehead than is usual in Sikhim or Thibetan specimens; but I cannot see how they are to be separated from *O. elwesi*, which they resemble in form and size of bill. The whole series of specimens appears to me to belong to *O. elwesi*. From Mongolia there is a single specimen of a small race (wing 4·2 inches), and a Gobi specimen has the wing 4·2 inches and the culmen 0·45: they seem to indicate the existence of a race with smaller dimensions than the average examples of *O. elwesi*.

Hab. Sikhim and Eastern Himalayas into Thibet and westwards to Kumaon and Kulu; Turkestan to the mountains of Mongolia and Northern China.

| | | |
|---|---|--|
| <i>a.</i> ♂ ad. sk. | Kangra Lama Pass, Sikhim,
Oct. 6. | W. T. Blanford, Esq.
[P.]
(Type of <i>O. elwesi</i> .) |
| <i>b.</i> ♀ ad. sk. | Kangra Lama Pass, Oct. 4 (<i>H. J. Elwes</i>). | Hume Coll. |
| <i>c, d, e.</i> ♂ ad.;
<i>f-i.</i> Pull. sk. | Sikhim (<i>L. Mandelli</i>). | Seebohm Coll. |
| <i>k-n.</i> ♂ ad.; <i>o-s.</i> Juv. sk. | Sikhim, Oct. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>t-a'.</i> ♂ ♀ hiem.;
<i>b', c', d'.</i> Pull. sk. | Sikhim (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>e'.</i> ♂ æstiv. sk. | Native Sikhim, Aug. (<i>L. Mandelli</i>). | Oates Coll. |
| <i>f'.</i> ♂; <i>g', h', i'.</i> ♀ æstiv.; <i>k', l'.</i> ♂ hiem. sk. | Native Sikhim, Feb., April, Sept. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>m'-z'.</i> ♂; <i>a'', b'', c''-i''.</i> ♀ hiem.; Juv. sk. | Thibet, Aug. to Oct. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>k''.</i> ♀ æstiv. sk. | Thibet (<i>L. Mandelli</i>). | Oates Coll. |
| <i>l'', m''.</i> ♂ ad.;
<i>n''.</i> ♀ sk. | Kumaon (<i>Strachey</i>). | India Mus. |
| <i>o''.</i> ♀ ad. sk. | Kulu (<i>Major Hay</i>). | Gould Coll. |
| <i>p''.</i> ♀ ad. sk. | Tangsee, Oct. 9 (<i>Dr. Henderson</i>). | Hume Coll. |
| <i>q''-s''.</i> ♂ ad. sk. | Panjong Lake, Oct. 8 (<i>Dr. Henderson</i>). | Hume Coll. |
| <i>t''.</i> ♀; <i>u''-z''.</i> ♂ sk. | Yarkand route (<i>J. Biddulph</i>). | Hume Coll. |
| <i>a³.</i> ♂ ad. sk. | Aktagh, Karakoram Mts.,
June 13 (<i>J. Biddulph</i>). | Seebohm Coll. |
| <i>b³, c³.</i> ♂ ♀ ad. sk. | Aktagh, June 14 (<i>J. Biddulph</i>). | Hume Coll. |
| <i>d³.</i> ♂ ad. sk. | Ladakh (<i>Dr. Henderson</i>). | Hume Coll. |
| <i>e³.</i> ♀ ad. sk. | Karakash Valley, Aug. 3 (<i>Dr. Henderson</i>). | Hume Coll. |
| <i>f³, g³.</i> ♂ ♀ ad. sk. | Maiterek and Arkad Mountains,
Turkestan, May (<i>Dr. O. Finsch</i>). | Geogr. Soc. Bremen. |
| <i>h³, i³.</i> ♀ ad.;
♂ pull. sk. | Karakul, Turkestan, Aug., Oct. | Severtzoff Coll. |
| <i>k³.</i> ♂ ad. sk. | Semicetchje, June 6. | Severtzoff Coll. |
| <i>l³.</i> ♀ ad. sk. | Turkestan, Sept. 23 (<i>Dr. Severtzoff</i>). | Seebohm Coll. |
| <i>m³.</i> ♂ ad. sk. | Tian-shan, May (<i>Prjewalsky</i>). | Seebohm Coll. |
| <i>n³.</i> ♂ ad. sk. | Baganor, N.W. Mongolia, April 7
(wing 4·2 in.). | Dr. Severtzoff [C.]. |

| | | |
|---|--|----------------------|
| o ³ . ♀ ad. sk. | N.W. Mongolia, Nov. 2. | Dr. Severtzoff [C.]. |
| p ³ , q ³ . ♂ ad. sk. | N. Thibet, Jan., Nov. (<i>Prjewalski</i>). | Seebohm Coll. |
| r ³ . ♂ ad. sk. | R. Dy-tschu, June (<i>Prjewalski</i>). | Seebohm Coll. |
| s ³ , t ³ . ♂ ad. sk. | Gobi Desert, Nov. (<i>Prjewalski</i>). | Seebohm Coll. |
| u ³ u ³ . ♂ ad. sk. | Zaidam, Aug., Dec. (<i>Prjewalski</i>). | Seebohm Coll. |
| v ³ . ♂ ad. sk. | Njan-shan, June (<i>Prjewalski</i>). | Seebohm Coll. |
| y ³ . ♂ ad. sk. | Kansu, Aug. (<i>Prjewalski</i>). | Seebohm Coll. |
| z ³ , a ⁴ . ♂ ad. sk. | Kukunoor, Feb., April (<i>Prjewalski</i>). | Seebohm Coll. |
| b ⁴ . Ad. sk. | Tientsin (<i>Fleming</i>). | Seebohm Coll. |

Subsp. α. *Otocorys longirostris*.

Otocorys longirostris, Moore, P. Z. S. 1855, p. 215, pl. 3 (*ex Gould, MSS.*); *Horsf. & Moore, Cat. B. Mus. E. I. Col. u.* p. 470 (1856); *Jerdon, B. Ind. ii.* p. 431 (1863); *Blyth, Ibis*, 1867, p. 47; *Gray, Hand-l. B. ii.* p. 117, no. 7737 (1870); *Hume, S. F.* 1873, p. 250, 1879, p. 109; *Sully, Ibis*, 1881, pp. 50, 51; *Bidd. Ibis*, 1882, p. 285; *Dresser, Ibis*, 1884, p. 116; *Seebohm, l. c.* p. 184.

Alauda longirostris, *Seebohm, Br. B. ii.* pp. 285, 286, notes (1884).

Adult male. Similar to *O. elwesii*, but much larger and with a very much longer bill. The general colour is also more ashy in winter, with much less vinous colour about the plumage.

The males have the culmen from 0.55–0.7 inch and the wing 5.5–5.2. One male from Kulu approaches *O. elwesii* and has the wing only 4.8, but this dimension, though less than that of the other males, exceeds the wing-measurement of the longest-winged male of *O. elwesii*.

The only female examined has the wing 4.8 inches and the culmen 0.65, exceeding in length any of the males of *O. elwesii*.

Hab. Ladakh and Cashmere, extending into the valley of the Sutlej and as far as Kumaon.

| | | |
|-------------------------------------|--|-----------------------|
| a. ♂ ad. sk. | Hills north of Kumaon. | Tweeddale Coll. |
| b. ♂ ad. sk. | Sutlej Valley (<i>Major Tweedie</i>). | Gould Coll. |
| c. ♀ ad. sk. | Sutlej Valley, June. | Hume Coll. |
| d. ♂ ad. sk. | Sutlej Valley (<i>Dr. Jerdon</i>). | Tweeddale Coll. |
| e, f, g. ♂; h, i, k. ♀ ad. sk. | Kulu (<i>Major Hay</i>). | Gould Coll. |
| (Types of <i>O. longirostris</i>). | | |
| l. ♂ ad. sk. | Cashmere. | Hume Coll. |
| m. ♀ ad. sk. | Barzil Pass, May 20. | Col. Biddulph [C.]. |
| n. ♂ ad. sk. | Balistan, May 26. | Col. Biddulph [C.]. |
| o. ♂ ad. sk. | Ladakh. | Purchased. |
| p. ♂ ad. sk. | Pangong Lake, Ladakh, Sept. 21 (<i>J. Biddulph</i>). | Seebohm Coll. |
| q. ♂ hiem. sk. | Tanksee, Oct. 9 (<i>G. Henderson</i>). | Hume Coll. |
| r. ♂ ad. sk. | Ladakh (<i>Dr. Bellew</i>). | India Museum. |
| s. ♂ ad. sk. | Thibet. | Earl of Gifford [P.]. |

Subsp. β. *Otocorys brandti*.

Otocorys albigula, *auct. (nec Bp. Consp. l. c. *)*.

* The type of *O. albigula*, Bp., is in the Leiden Museum; Dr. Battikofer has kindly examined it for me and says that it is undoubtedly *O. penicillata*.

Otocorys albigula, *Blanf. Ibis*, 1873, p. 214; *Dybowski, J. f. O.* 1868, p. 334; *Menzbier, Ibis*, 1885, p. 354.

Otocorys brandti, *Dresser, B. Eur.* vol. iv. p. 402 (1874); *id. Ibis*, 1876, p. 181; *Seebohm, Ibis*, 1882, p. 424; *Dresser, Ibis*, 1884, p. 117, 1889, p. 91.

Alauda penicillata (*nec Gould*), *Finsch, Reis. West-Sibir.* p. 114 (1879).

Otocorys parvexi, *Tacz. Bull. Soc. Zool. France*, i. p. 161 (1876).

Otocorys petrophila, *Severtz. J. f. O.* 1873, p. 379.

Adult male. Similar to *O. elwesi* and having the black of the ear-coverts separated from the black of the fore neck by a white interspace, but differing in the shorter and stouter bill.

The males have the culmen from 0.45–0.55 inch and the wing 4.0–4.6 inches. In the females the culmen is 0.45–0.5 and the wing 3.95–4.1 inches. The difference in size between the sexes is, therefore, not so marked as in some of the allied species, and the female seems to me to have more black on the crown than in *O. elwesi*.

Hab. From Astrachan and Samarkand to Turkestan, the Altai Mountains, and eastwards to the Kiachta district.

| | | |
|--|---|------------------------------------|
| <i>a, b.</i> ♂ ad. sk. | Astrachan, Jan. | Purchased. |
| <i>c.</i> ♂ ad. sk. | Samarkand. | Seebohm Coll. |
| <i>d.</i> ♀ ad. sk. | Khoosh Maidan, Yarkand, Sept. 26 (<i>Dr. G. Henderson</i>). | Hume Coll. |
| <i>e.</i> ♂ ad. sk. | Ferghana, Oct. 25. | Severtzoff Coll. |
| <i>f.</i> ♂ ad. hiem.;
<i>g, h.</i> ♀ ad. sk. | Turkestan, Sept., Oct. (<i>Dr. Severtzoff</i>). | Seebohm Coll. |
| <i>i.</i> ♂ ad. sk. | Fort Perowsk, Syr-Darya, Jan. 20. | Purchased. |
| <i>k, l.</i> ♂ ♀ ad. sk. | Turkestan (<i>Dr. Severtzoff</i>). | Tweeddale Coll. |
| <i>m.</i> ♂ ad. sk. | R. Oxus, Dec. 3 (<i>Dr. Severtzoff</i>). | Seebohm Coll. |
| <i>n.</i> ♀ ad. sk. | Lake Aral. | St. Petersburg Mus. [P.]. |
| <i>o.</i> ♀ ad. sk. | Sergiopol, Aug. 31. | Severtzoff Coll. |
| <i>p.</i> ♂ ad. sk. | Katalinska (<i>Russoff</i>). | Seebohm Coll. |
| <i>q.</i> ♂ ad. sk. | Altai Mountains. | Mr. Brandt. |
| <i>r.</i> ♂ ad. sk. | Altai Mountains. | Gould Coll. |
| <i>s.</i> ♀ ad. sk. | Altai Mountains. | St. George Little-dale, Esq. [P.]. |
| <i>t, u.</i> ♂ ad. sk. | Kiachta, Transbaikalia, Oct., Nov. | Purchased. |

3. *Otocorys bilopha*.

Alauda bilopha, *Temm. Pl. Col.* iii. pl. 244. fig. 1 (1823); *Rüpp. Neue Wirb.* p. 104 (1835–40); *Seebohm, Hist. Br. B.* ii. p. 285 (1851).

Otocorys bilopha, *Rüpp. Syst. Uebers.* p. 78 (1845); *Heugl. Syst. Uebers.* p. 43 (1853).

Otocorys bilopha, *Bp. Comp.* i. p. 246 (1850); *Cab. Mus. Hein. Th.* i. p. 122 (1854); *Tristr. Ibis*, 1859, p. 421; *Degl. & Gerbe*, i. p. 349 (1867); *Loche, Expl. Sci. Algér., Ois.* ii. p. 20 (1867); *id. Ibis*, 1869, p. 153; *Gray, Hand-l. B.* ii. p. 117, no. 7741 (1870); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 699 (1870); *Gurney, Ibis*, 1871, p. 290; *Dresser, B. Eur.* iv. p. 399, pl. 245 (1874); *Irby, B. Gibr.* p. 115 (1875).

Phileremos bicornis, *Brehm, Vögel.* p. 123 (1855).

According to Mr. Ridgway the dimensions are as follows:—

Adult male. Length 7-7.5 inches, wing 4-4.3 (average 4.13), tail 2.9-3.1 (2.99).

Adult female. Length 6.75-6.85 inches, wing 3.7-4 (3.84), tail 2.6-2.9 (2.73).

The nestlings of this species and the young after their first moult are unusually dark.

Hab. Upper Mississippi Valley and region of the Great Lakes (especially within United States), east, locally, to New York; south, in winter, to Virginia and north-eastern Texas (*cf.* Ridgw. Man. p. 348).

| | | |
|--|---|-----------------------------|
| a, b. Ad.; c. Pull. sk. | N.W. America. | Capt. Collinson [P.]. |
| d. ♂ ad. sk. | Fort Simpson, May 23. | B. R. Ross, Esq. [P.]. |
| e, f. ♂ ♀ ad. sk. | Fort Dufferin, Manitoba
(G. Dawson). | N. Amer. Boundary
Comm. |
| g, h, i. ♂ ad. sk. | British Columbia. | J. K. Lord, Esq. [P.]. |
| k. Pull. sk. | Grant Co., Minnesota, June
12, 1881 (H. W. H.). | Salvin-Godman Coll. |
| l, m, n. ♂; o. ♀
ad.; p. Pull. sk. | Locust Grove, New York,
Feb., June, July (C. H.
Merriam). | Henshaw Coll. [S.-
G.]. |
| q. Pull. sk. | Lewis County, N.Y., June 3
(W. Brewster). | Henshaw Coll. [S.-
G.]. |
| r, s, t. ♂ ad. sk. | Lowville, N.Y., March 24
(E. L. Dayan). | Henshaw Coll. [S.-
G.]. |
| u, v, w. ♀ ad. sk. | Washington, D.C., Jan.,
March (H. W. H.). | Salvin-Godman Coll. |
| x-a'. ♂; y f'. ♀;
g', h'. Pull. sk. | Illinois, Feb. to June (E.
W. Nelson). | Henshaw Coll. [S.-
G.]. |
| i'. Juv. sk. | Halfday, Illinois, Aug. 25
(H. K. Coale). | R. B. Sharpe, Esq.
[P.]. |
| k', l', m'. ♂ ad.;
n'. Pull. sk. | St. Louis, Missouri, March,
May, Dec. (H. W. H.). | Salvin-Godman Coll. |
| o', p'. ♂ ♀ ad. sk. | Manhattan, Kansas, March
11 (D. E. Lantz). | Henshaw Coll. [S.-
G.]. |
| q', r', s'. ♂; t'. ♀
ad. sk. | Dallas, Texas, Nov. to Jan.
(C. J. Maynard). | Henshaw Coll. [S.-
G.]. |
| u'. ♂ ad. sk. | Cook Co., Texas, Dec. 5
(G. H. Ragsdale). | Henshaw Coll. [S.-
G.]. |

Mr. Ridgway's measurements are as follows:—

Adult male. Length 7–7.5 inches, wing 4.05–4.3 (4.16), tail 2.75–3.15 (2.99).

Adult female. Length about 6.5–6.75 inches, wing 3.7–4 (3.84), tail 2.5–2.8 (2.68).

This race seems to run into *O. praticola* on the one hand, and into *O. strigata* on the other. Occasionally a little yellow appears on the chest, showing an approach to *O. strigata*. The Arizona specimens are darker than those from Colorado, and show a decided approach to *O. chrysolaema* in the deep yellow of the throat.

Hab. Great Plains and Rocky Mountain district (including Great Basin) of United States, south to New Mexico and Northern Arizona, and Texas (*cf.* Ridgw. Man. p. 349).

| | | |
|---|--|------------------------|
| <i>a.</i> ♂ ad. sk. | Fort Buford, Dakota, Sept. 6 (<i>V. Bailey</i>). | Henshaw Coll. [S.-G.]. |
| <i>b-n.</i> ♂; <i>o-t.</i> ♀;
<i>u-b'</i> . Pull. sk. | Colorado Springs, Colorado, May to July, Nov. (<i>H. W. Henshaw</i>). | Salvin-Godman Coll. |
| <i>c'-p'</i> . ♂; <i>q'-s'</i> . Ad. sk. | Springville, Arizona, Dec. (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| <i>t', u'</i> . ♂ ♀ ad.; <i>v'</i> . Juv. sk. | Fort Wingate, New Mexico, June, July (<i>R. W. Shufeldt</i>). | Henshaw Coll. [S.-G.]. |
| <i>w', x', y'</i> . ♂ ad. sk. | Utah, Dec., Jan. (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| <i>z', a''</i> . ♂ ad. sk. | Dallas, Texas, Nov., Dec. (<i>C. J. Maynard</i>). | Henshaw Coll. [S.-G.]. |
| <i>b''</i> . ♂ ad. sk. | Gainesville, Texas, Nov. 15 (<i>G. H. Ragsdale</i>). | Henshaw Coll. [S.-G.]. |
| <i>c'', d''</i> . ♂ ♀ ad. sk. [W. 4.15.] | Laredo, Texas, Dec. (<i>Dr. H. B. Butcher</i> : Sm. nos. 46946, 46234). | Henshaw Coll. [S.-G.]. |
| <i>e'', f'', g''</i> . ♂ ad. sk. [W. 4.05–4.25.] | Presidio County, Texas, Jan. (<i>W. Lloyd</i>). | Salvin-Godman Coll. |
| <i>h''</i> . ♂ ad. sk. [W. 4.2.] | Howard's Rancho, Bexar, Texas, Feb. 20 (<i>H. E. Dresser</i>). | Salvin-Godman Coll. |
| <i>i''-m''</i> . ♂ ad. [W. 4.05–4.2]; <i>n''</i> , <i>o''</i> . ♀ ad. sk. [W. 3.9–4.1.] | La Mula, Chihuahua, Jan. 27 (<i>W. Lloyd</i>). | Salvin-Godman Coll. |
| <i>p''</i> . ♂ ad. sk. [W. 4.1.] | Fresno, Chihuahua, Jan. 14 (<i>W. Lloyd</i>). | Salvin-Godman Coll. |
| <i>q''</i> . ♀ ad. sk. [W. 3.8.] | El Rosario, Chihuahua, Jan. 8 (<i>W. Lloyd</i>). | Salvin-Godman Coll. |
| <i>r'', s''</i> . ♂ ad. [W. 4.05–4.2]; <i>t''</i> . ♀ ad. sk. [W. 3.8.] | Guerrero, Chihuahua (<i>W. Lloyd</i>). | Salvin-Godman Coll. |

5. *Otocorys alpestris*.

The Lark, *Catesby, Nat. Hist. Carol.* i. p. 32, pl. 32 (1731).

L'Alouette de Virginie, *Briss. Orn.* iv. p. 367 (1760, *ex Catesby*).

- Alauda alpestris*, Linn. *Syst. Nat.* i. p. 280 (ex Catesby); Gm. *Syst. Nat.* i. p. 800 (1788); Wilson, *Amer. Orn.* i. p. 85, pl. 5. fig. 4 (1808); Temm. *Man. d'Orn.* i. p. 279 (1820); Audub. *B. Amer.* pl. cc.; Naum. *Vög. Deutschl.* iv. p. 149, Taf. 99 (1824); Werner, *Atlas, Granivores*, pl. 4 (1827); Audub. *Orn. Biogr.* ii. p. 570 (1834); Gould, *B. Eur.* iii. pl. 104 (1837); Macg. *Br. B.* ii. p. 159 (1839); Nordm. in *Démid. Voy. Russ. Mérid.* iii. p. 101 (1840); Audub. *B. Amer.* 8vo, iii. p. 44, pl. 151 (1841); Selys-Longch. *Faune Belge*, p. 83 (1842); Schl. *Rev. Crit.* p. lx (1844); Midd. *Reis. Sibir., Zool.* p. 133 (1851); Kjørb. *Dann. Fugle*, pl. xviii. fig. 7 (1852); Schl. *Vog. Nederl.* p. 295, pl. 150 (1854); Hewitt. *Eggs Br. B.* p. 178*, pl. xlv* (1856); Sundev. *Svensk. Fögl.* pl. viii. fig. 3 (1856); Schl. *Dier. Nederl. Vog.* pl. 17. fig. 13 (1861); Fritsch, *Vög. Eur.* tab. 10. fig. 13 (1870); R. Gray, *B. West Scott.* p. 118 (1871); Harting, *Handb. Brit. B.* p. 25 (1872); Fallon, *Ois. Belg.* p. 75 (1875); Finsch, *Reis. West-Sibir.* p. 113 (1879); Seebohm, *Hist. Br. B.* ii. p. 284 (1884).
- Alouette de Sibirie, Daubent. *Pl. Enl.* v. pl. 650. fig. 2.
- Le Hausse-col noir ou L'Alouette de Virginie, Montb. *Hist. Nat. Ois.* v. p. 55 (1778).
- La ceinture de Prêtre ou L'Alouette de Sibirie, Montb. *t. c.* p. 61 (1778).
- Shore Lark, Lath. *Gen. Syn.* ii. pt. 2, p. 885 (1783); Penn. *Arctic Zool.* ii. p. 392 (1785); Yarr. *Brit. B.* i. p. 402 (1843).
- Alauda flava*, Gm. *Syst. Nat.* i. p. 800 (1788).
- Alauda cornuta*, Wilson, *Amer. Orn.* i. p. 87 (1808).
- Alauda nivalis*, Pall. *Zoogr. Russo-Asiat.* i. p. 519 (1811).
- Eremophila alpestris*, Boie, *Ibis*, 1828, p. 322; Cooper, *B. Calif.* p. 251 (1870); Coues, *Key N. Amer. B.* p. 89 (1872); id. *B. N.-West*, p. 37 (1874); Baird, Brewer, & Ridgw. *Hist. N. Amer. B.* ii. p. 141 (1874); Henak. *Rep. Zool. Explor. 100th Par.* p. 360 (1875); Loomis, *Bull. Nutt. Orn. Club*, iv. p. 211 (1879); Scott, *t. c.* p. 223; Parker, *op. cit.* vi. p. 177 (1881); Merriam, *t. c.* p. 231; Coues, *Key N. Amer. B.* 2nd ed. p. 281 (1884).
- Eremophila cornuta*, Boie, *Ibis*, 1828, p. 322; Baird, *B. N. Amer.* p. 403 (1858); id. *Ibis*, 1867, p. 289.
- Phileremos alpestris*, Brehm, *Vog. Deutschl.* p. 313 (1831); Bp. *Comp. List B. Eur. & N. Amer.* p. 37 (1838); Keys. & Blas. *Wirt. Eur.* p. 150 (1840); Borggr. *Vogelf. Deutschl.* p. 70 (1860).
- Phileremos cornutus*, Bp. *Comp. List*, p. 37 (1838).
- Otocoris alpestris*, Bp. *Nuovi Ann. Sci. Nat. Bologna*, ii. p. 407 (1838); id. *Ann. Ital. Un.* p. 5 (1841); Gray *Gen. B.*

- Ibis*, 1861, p. 8; *Stevens. Ibis*, 1862, p. 308; *Gigl. Ibis*, 1866, p. 58; *Elwes & Buckley, Ibis*, 1870, p. 195; *Salvad. Faun. Ital. Ucc.* p. 134 (1871); *Swinh. P. Z. S.* 1871, p. 390; *Heugl. Ibis*, 1872, p. 61; *Severtz. Turkest. Jernotn.* p. 67 (1873); *Alston & Harvie Brown, Ibis*, 1873, p. 62; *Newton, ed. Yarr. Br. B.* i. p. 604 (1874); *Dresser, B. Eur.* iv. p. 387, pl. 243 (1874); *id. Ibis*, 1876, p. 180; *Cordeaux, Ibis*, 1876, p. 182; *Danf. & Harvie Brown, t. c.* p. 310; *Seeb. & Harvie Brown, Ibis*, 1876, p. 119; *Collett, P. Z. S.* 1877, p. 47; *David & Oust. Ois. Chine*, p. 315 (1877); *Seeb. Ibis*, 1878, p. 34, 1882, pp. 217, 379; *B. O. U. List Br. B.* p. 73 (1883); *Hensh. Auk*, i. p. 263 (1884); *Chapm. Ibis*, 1885, p. 174; *Dubois, Bull. Mus. R. Belg.* iii. p. 223 (1884); *Brooks, Ibis*, 1885, p. 380; *Gigl. Avif. Ital.* p. 59 (1886); *A. O. U. Check-l. N. Amer. B.* p. 238 (1886); *Ridgw. Man. N. Amer. B.* p. 348 (1887); *Irby, Key-list Br. B.* p. 21 (1888); *Saunders, Man. Br. B.* p. 249 (1888); *Gigl. Avif. Ital. 1st Resoc.* p. 119 (1889).
- Otocorys cornuta*, *Cab. Mus. Hein. Th.* i. p. 122 (1850).
- Otocoryx alpestris*, *Licht. Nomencl.* p. 38 (1854).
- Alauda (Phileremos) alpestris*, *Schrenk, Reis. Amurl.* p. 271 (1859); *Radde, Reis. Sibir.* p. 152, pl. iii. fig. 2 (1863).
- Otocorys penicillata* (*nec Gould*), *Swinh. Ibis*, 1863, p. 94; *Tristr. Ibis*, 1866, p. 289.
- Otocoris nivalis*, *Gray, Hand-l. B.* ii. p. 117, no. 7735 (1870).

Adult male in breeding-plumage. General colour above ashy brown with a vinous shade, the back and rump with black centres to the feathers; the scapulars less distinctly marked; lesser and median coverts pale vinous, the latter with ashy margins; greater coverts, bastard-wing, and primary-coverts dusky brown with hoary whitish edges and a slight vinous tinge; quills dusky brown, edged with ashy grey, the first primary externally white, the inner secondaries browner and more like the greater coverts; upper tail-coverts pale vinous; centre tail-feathers ashy with black centres, the rest black, the outer feather white along the outer web; hinder crown, nape, hind neck, and sides of neck pale vinous; forehead and a broad eyebrow white, followed by a broad band of black across the crown, which is produced backward into two black hornlets; feathers round eye or eyelid, nasal plumes, lores, feathers below the eyes, and fore part of ear-coverts black, extending along the cheeks; ear-coverts yellowish white, dusky behind; malar line and throat white, the latter tinged with yellow, extending on each side to the sides of the neck, and skirting the black ear-coverts till it reaches to behind the eye and joins the white eyebrow; a large patch of black on the fore neck, extending on to the lower throat; chest and remainder of under surface of body white; sides of breast clear vinous, paler on the sides of body, which are slightly streaked with blackish; thighs vinous; under tail-coverts white; under wing-coverts and axillaries white; quills below dusky, the inner edge white: "bill greyish black, the base of the lower mandible bluish white; feet and claws brownish black, tinged with grey" (*W. Macgillivray*). Total length 6·8 inches, culmen 0·55, wing 4·25, tail 2·9, tarsus 0·9.

Adult female in breeding-plumage. Browner than the male and not so strongly washed with vinous, the black band on the crown not so strongly defined, and the hinder crown and nape brown, strongly mottled with blackish brown, the back also much more distinctly marked than in the male; the black on the throat and sides of face not so strongly developed as in the male, and the white forehead and throat strongly washed with yellow. Total length 6 inches, culmen 0.6, wing 4.1, tail 2.5, tarsus 0.55.

Adults in winter plumage. Much browner than in summer, the black on the head, face, and throat entirely obscured by ashy or vinous-brown tips to the feathers, the throat and cheeks, forehead, and eyebrow sulphur-yellow, and the white of the chest and upper breast sullied with dusky tips to the feathers; flanks much more reddish brown, and not so vinous as in summer. There is a strong shade of yellow not only over the white parts of the face and throat, but even over the adjacent brown portions of the feathers. This yellow shade gradually disappears from the eyebrow and facial markings as the summer progresses and the breeding-plumage becomes worn. The black bands on the crown and on the fore neck are developed by the shedding of the tips to the feathers.

Nestling (newly hatched). Covered with tufts of down of a lax and feathery nature, of a pale yellow colour.

Nestling (fully grown and able to fly). Everywhere spotted like a young Game-bird on the upper surface: the general aspect being blackish, thickly covered with spots of sandy buff, mostly triangular in shape; the quills and tail-feathers distinctly edged with sandy buff; throat yellow, extending behind the ear-coverts, and showing the black markings of the face of the adult; remainder of under surface of body white, tinged with yellow on the breast, the whole of the fore neck, chest, and sides of body washed with sandy buff and mottled with subterminal spots of black.

I quite agree with Mr Henshaw that the large Horned Lark of Europe cannot be separated from that of North America. He thinks that there may be more than one race of the species in Europe, as a specimen from Southern Russia "differs markedly from the *O. alpestris* of Northern Europe, and evidently represents a large and extremely pale race." This idea is not borne out by the specimens in the British Museum, an example from the Crimea being absolutely similar in colour to another from Norway; both are males, and have the wing 4.2 inches in length.

The American specimens of *O. alpestris* in winter are always more spotted with dull ashy on the chest, but otherwise the European and North-American examples appear to be precisely identical, and, like the Shore-Lark in its breeding-haunts in Europe, the specimens from Hudson's Bay and Labrador appear to gradually lose the yellow on the forehead and eyebrow. As a rule the larger size of the male is very apparent, and the black patch on the fore neck is larger and is more distinct than in the female, it being

evident that the light edges are shed by the male sooner than in the female; the black on the face is therefore much more apparent.

According to Mr. Ridgway the limits of the measurements of *O. alpestris* should be as follows:—

Adult male. Length about 7·5–8 inches, wing 4·2–4·6 (average 4·41), tail 2·7–3·1 (2·98).

Adult female. Wing 3·95–4·55 (4·19), tail 2·5–3·1 (2·78).

Hab. The northern portions of the Old and New Worlds, breeding within the Arctic Circle, and going south in winter.

| | | |
|--|---|--------------------------|
| <i>a.</i> ♂ ad. hiem. st. | Near Brighton, Sussex, Dec. 1882. | R. B. Sharpe, Esq. [P.]. |
| <i>b, c, d.</i> ♂; <i>e.</i> ♀ ad.;
<i>f.</i> Pull. sk. | Norway, May, Aug. to Sept. | Prof. R. Collett [P.]. |
| <i>g-k.</i> ♂; <i>l.</i> ♀ ad. sk. | Vadso, Norway, June (<i>H. S.</i>). | Seebohm Coll. |
| <i>m, n.</i> ♀ ad. sk. | Wermland, Sweden, Oct. (<i>W. Meves</i>). | R. B. Sharpe, Esq. [P.]. |
| <i>o, p.</i> ♂ ♀ ad. sk. | Wermland, Oct. (<i>W. M.</i>). | Seebohm Coll. |
| <i>q.</i> ♀ ad. æstiv. sk. | Lapland (<i>F. D. G.</i>). | Salvin-Godman Coll. |
| <i>r, s.</i> ♂ ♀ ad.; <i>t.</i> Pull. sk. | Quickiock Fell, Lapland, July (<i>H. Wheelwright</i>). | Gould Coll. |
| <i>u-y.</i> Ad. sk. | Heligoland, March, Oct., Nov. | Seebohm Coll. |
| <i>z, a'.</i> ♂ ♀ ad. sk. | Heligoland, May (<i>L. Gütke</i>). | R. B. Sharpe, Esq. [P.]. |
| <i>b'-h'.</i> ♂; <i>i', k'.</i> ♀ ad. sk. | Lower Petchora River, May, June (<i>H. S. & J. A. H. B.</i>). | Seebohm Coll. |
| <i>l'.</i> Ad. sk. | N. Russia, April 23. | Gould Coll. |
| <i>m', n'.</i> ♂ ♀ ad. sk. | Lisistrov, May 19. | Seebohm Coll. |
| <i>o', p'.</i> Ad. et juv. sk. | Crimea. | Gould Coll. |
| <i>q'.</i> ♀ ad. sk. | Kaos-chat, Ob River, Sept. 21 (<i>Dr. O. Finsch</i>). | Geogr. Soc. Bremen |
| <i>r'-u'.</i> ♂; <i>v', w', x'.</i> ♀ ad. sk. | Yen-e-say Valley, June, July (<i>H. S.</i>). | Seebohm Coll. |
| <i>y'.</i> ♀ ad. sk. | Torgaschino, Krasnoyarsk, Dec. 29 (<i>Kibort</i>). | Seebohm Coll. |
| <i>z'.</i> ♂ ad. sk. | Tobol River, Oct. 2. | Severtzoff Coll. |
| <i>a''.</i> ♂ ad. sk. | Omsk, Sept. 28. | Severtzoff Coll. |
| <i>b''.</i> ♀ ad. sk. | Trendyk, W. Siberia, Oct. 8. | Severtzoff Coll. |
| <i>c''.</i> Ad. sk. | Altai Mountains. | Gould Coll. |
| <i>d''.</i> ♀ ad. sk. | Siberia. | Tweeddale Coll. |
| <i>e''.</i> ♂ ad. sk. | Siberia (<i>Swinhoe Coll.</i>). | Seebohm Coll. |
| <i>f''.</i> Ad. sk. | Repulse Bay. | Dr. Rae [P.]. |
| <i>g''.</i> ♂ ad. sk. | Labrador (<i>Dr. E. Coues</i>). | Henshaw Coll. [S.-G.]. |
| <i>h''.</i> ♂ ad. sk. | Montreal, Canada, April 8 (<i>Dr. C. H. Merriam</i>). | Henshaw Coll. [S.-G.]. |
| <i>i''.</i> ♂ ad. sk. | Ortonagon, Michigan, Aug. 10 (<i>A. J. Dayan</i>). | Henshaw Coll. [S.-G.]. |
| <i>k''.</i> ♂ ad. sk. | Chicago, Illinois, March 26 (<i>H. K. Coale</i>). | Henshaw Coll. [S.-G.]. |
| <i>l''.</i> ♀ ad. sk. | Waukegan, Ill., April 24 (<i>E. W. Nelson</i>). | Henshaw Coll. [S.-G.]. |

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| <i>m''-t''</i> . ♂; <i>u''-w''</i> . ♀ ad. sk. | Ipswich, Mass., Oct., Nov. (W. Brewster). | Henshaw Coll. [S.-G.] |
| <i>x''</i> . ♂ ad. sk. | Belmont, Mass., Oct. 28 (W. Brewster). | Henshaw Coll. [S.-G.] |
| <i>y''</i> , <i>z''</i> . ♂ ♀ ad. sk. | Leyden, New York, Feb. (C. H. Merriam). | Henshaw Coll. [S.-G.] |
| <i>a''</i> , <i>b''</i> . ♀ ad. sk. | Long Island, New York, Feb. 22 (H. W. Henshaw). | Salvin-Godman Coll. |
| <i>c''</i> , <i>d''</i> . ♂ ad. sk. | New Haven, Connecticut, Dec. 27 (A. J. Dayan). | Henshaw Coll. [S.-G.] |
| <i>e''</i> , <i>f''</i> . ♂ ♀ ad. sk. | Washington, D.C., Jan., Feb. (H. W. H.). | Salvin-Godman Coll. |
| <i>g''</i> . Ad. sk. | Washington, Aug. 11 (C. E. Schmidt). | Henshaw Coll. [S.-G.] |
| <i>h''</i> , <i>i''</i> . ♂ ♀ ad. sk. | Washington, Dec., Feb. (S. F. Baird & E. Coues: Sm. nos. 25247, 28060). | Salvin-Godman Coll. |
| <i>k''</i> . Skeleton. | Europe. | Zoological Society. |

Subsp. *a*. *Otocorys chrysolæma*.

Alauda cornuta (nec Wils.), Swains. Zool. Journ. i. p. 434 (1827).

Alauda chrysolæma, Wagler, Isis, 1831, p. 300; Bp. P. Z. S. 1837, p. 111.

Otocorys rufa, Heerm. P. R. R. Rep. x. p. 45, pl. vi. (1850).

Otocoris chrysolæma, Bp. Cons. i. p. 246 (1850); Gray, Hand-l. B. ii. p. 117, no. 7739 (1870).

Otocorys chrysolæma, Cab. Mus. Hein. i. p. 122 (1850); Finsch, Abhandl. nat. Ver. Bremen, ii. p. 341 (1871).

Otocoryx cornuta (nec Wils.), Licht. Nomencl. p. 39 (1854).

Eremophila cornuta, var. *chrysolæma*, Baird, B. N. Amer. p. 403 (1858).

Eremophila chrysolæma, Sci. P. Z. S. 1859, p. 372; id. Cat. Amer. B. p. 126 (1863).

Eremophila alpestris, var. *chrysolæma*, Coues, Key N. Amer. B. p. 89 (1872); id. B. N.-West, p. 38 (1874); Baird, Brewer, & Ridgw. Hist. N. Amer. B. ii. p. 140 (1874); Hensh. Rep. 100th Merid. p. 310 (1875).

Eremophila alpestris chrysolæma, Coues, Check-l. p. 32 (1882); id. Key N. Amer. B. i. p. 282 (1884); Hensh. Auk, i. p. 263 (1884); L. O. L. Check-l. p. 39 (1886); Ridgw. Man. N. Amer. B. p. 349

The series in the Salvin-Godman Collection give the following dimensions:—Males, from the Valley of Mexico, wing 3.75–4.1 inches; females, from the Valley of Mexico, wing 3.6–4.05; males, from Jalapa, wing 4.0–4.15; female, from Jalapa, wing 3.8; males, from Puebla, wing 3.8–4.2; female, from Puebla, wing 3.65.

Hab. Tablelands of Mexico, extending north to southern New Mexico and Arizona, and westward across Southern California to the coast (Ridgway, *Man.* p. 349).

| | | |
|---|--|--------------------------------|
| <i>a.</i> Ad. sk. | Mexico. | Purchased. |
| <i>b.</i> Ad. sk. | San Luis Potosi, July
(<i>W. B. Richardson</i>). | Salvin-Godman Coll. |
| <i>c.</i> Ad. sk. | Vera Cruz (<i>A. Sallé</i>). | Salvin-Godman Coll. |
| <i>d.</i> ♂ imm. sk. | Las Vigas, Aug. (<i>Ferrari-Perez</i>). | Salvin-Godman Coll. |
| <i>e, f, g, h-k.</i> ♂;
<i>l, m.</i> ♀ ad. sk. | Jalapa, 6000 feet, July (<i>W. B. Richardson</i>). | Salvin-Godman Coll. |
| <i>n, o.</i> Ad. sk. | City of Mexico. | Salvin-Godman Coll. |
| <i>p-w.</i> ♂; <i>x-b'.</i> ♀
ad. sk. | Valley of Mexico, Jan.,
April, Aug. (<i>Ferrari-Perez</i>). | Salvin-Godman Coll. |
| <i>c', d'.</i> ♂; <i>e'.</i> ♀
ad. sk. | S. Miguel Molino, Hue-
jotzingo, Feb. (<i>Ferrari-Perez</i>). | Salvin-Godman Coll. |
| <i>f'-k'.</i> ♂; <i>l'.</i> ♀ ad.
sk. | Puebla, Jan.-April (<i>F. D. G.</i>). | Salvin-Godman Coll. |
| <i>m', n', o'.</i> ♂ ad. et
juv. sk. | Santa Barbara, Cal., Sept.
(<i>H. W. H.</i>). | Salvin-Godman Coll. |
| <i>p'-w'.</i> ♂; <i>y'-z'.</i> ♀
ad. sk. | San Diego, Cal., Dec., Jan.,
March, July (<i>L. Belding & F. Stephens</i>). | Henshaw Coll.
[S.-G.]. |
| <i>a''.</i> ♂ ad. sk. | Coyote Well, Cal., Dec. 1
(<i>F. Stephens</i>). | Henshaw Coll.
[S.-G.]. |
| <i>b'', c''.</i> Ad. sk. | Mojave Desert, Cal., Oct.
28 (<i>H. W. Henshaw</i>). | Salvin-Godman Coll. |
| <i>d'', e''.</i> ♂ ♀ ad. sk. | San Gorgonio, Cal., Feb.
23 (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| <i>f'-h''.</i> ♂ ad. sk. | Riverside, Southern Cali-
fornia, Feb. 17. | Wilson Crewdson,
Esq. [P.]. |
| <i>i'-k''.</i> ♂ ad. sk. | Colton, Cal., March (<i>R. B. Herron</i>). | Salvin-Godman Coll. |
| <i>l''-n''.</i> ♂ ad. sk. | Marin Co., Cal., April (<i>C. A. Allen</i>). | Salvin-Godman Coll. |
| <i>o''-q''.</i> ♂; <i>r'', s''.</i>
♀ ad. sk. | San Francisco, Sept., Oct.
(<i>H. W. H.</i>). | Salvin-Godman Coll. |
| <i>t''.</i> ♂ ad. sk. | Tucson, Arizona, Dec. 21
(<i>Herbert Brown</i>). | Henshaw Coll.
[S.-G.]. |
| <i>u''.</i> Ad. sk. | Sumass Prairie, British
Columbia. | J. K. Lord, Esq. [C.]. |

Subsp. *β. Otocorys peregrina.*

Otocoris chrysolaimus, *Bp. Atti Sc. Ital.* 1845, p. 405 (*nec Wagl.*).

Otocoris peregrina, *Scl. P. Z. S.* 1855, p. 110, pl. 102 *Gray, Hand-l.*
B. ii. p. 117, no. 7742 (1870).

Eremophila peregrina, *Scl. Cat. Amer. B.* p. 127 (1862).

Adult. Similar to *O. chrysolaema*, with the throat as deep yellow and the rufous colour as brightly contrasted, but distinguished by the coarse black stripes on the sides of the body and flanks. The winter plumage is very dark, blacker than in any of the other races of Horned Lark. Total length 5·5–6·0 inches, culmen 0·5–0·55, wing 3·65–3·8, tail 2·3, tarsus 0·8.

Hab. U.S. Colombia.

| | | |
|---|---------|-----------------------------------|
| <i>a, b, c.</i> ♂ ad.; <i>d, e.</i> ♀ ad.; <i>f.</i> Juv. sk. | Bogota. | Salvin-Godman Coll. |
| <i>g, h.</i> ♂ ad.; <i>i.</i> Juv. sk. | Bogota. | Sclater Coll. (Types of species.) |
| <i>k.</i> ♂ ad. sk. | Bogota. | Gould Coll. |

Subsp. γ. *Otocorys rubea*.

Alauda rufa (nec Gm.), *Audub. B. Am.* viii. p. 353, pl. 497 (1843).

Otocoris alpestris rubea, *Hensh. Auk*, i. p. 263 (1884); *A. O. U.*

Check-I. p. 240 (1886); *Ridgw. Man. N. Am. B.* p. 340 (1887);

Jeffries, Auk, vi. p. 222 (1889).

Similar to *O. chrysolaema*, from which it is scarcely distinguishable, but it is more ruddy in colour, and the back becomes uniform vinous-red without any streaks. The following are Ridgway's measurements:—

Adult male. Length about 6·5–7·0 inches, wing 3·7–4·1 (3·88), tail 2·6–2·9 (2·74).

Adult female. Length about 6·5 inches, wing 3·5–3·7 (3·61), tail 2·35–2·65 (2·49).

The Oaxaca male has the wing 3·9 inches, and the females 3·55–3·75. The two Zacatecas females measure 3·6–3·7 inches in the wing.

The specimens from San Francisco are considered by Mr. Henshaw and Mr. Ridgway to be intermediate between *O. strigata* and *O. rubea*.

Hab. Interior valleys of California (cf. *Ridgw. Mon.* p. 349), and ranging into Central Mexico.

| | | |
|---|---|---------------------|
| <i>r-x</i> . ♂; <i>y-c'</i> . ♀
ad. sk. | San Francisco, Cal., Sept.
18 (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| <i>d', e'</i> . ♀ ad.; <i>f', g'</i> .
Pull. sk. | Zacatecas, Mexico, Feb.,
Aug. (<i>W. B. Richardson</i>). | Salvin-Godman Coll. |
| <i>h'</i> . ♂ ad.; <i>i', k', l'</i> .
♀ ad. et juv. sk. | Oaxaca, March (<i>M. Trujillo</i>). | Salvin-Godman Coll. |

Subsp. δ . *Otocorys giraudi*.

Alauda minor (*nec Gm.*), *Giraud, B. Texas* (1841); *Scl. P. Z. S.* 1855, p. 66.

Otocoris minor (*nec Gm.*), *Gray, Hand-l. B.* ii. p. 117, no. 7740 (1870).

Eremophila alpestris chrysolæma, *Sennett, Bull. Geol. Surv.* iv. p. 9 (1878).

Otocorys alpestris giraudi, *Hensh. Auk*, i. p. 263 (1884); *A. O. U. Check-l.* p. 239 (1886); *Ridgw. Man. N. Amer. B.* p. 349 (1887).

Similar to *O. chrysolæma*, but yellow on the chest, this yellow colour very well marked, and in winter strongly mottled with blackish ends to the feathers. As a rule the yellow on the chest is well-developed, only two specimens lacking the yellow tinge altogether. The winter plumage is very grey compared with that of the allied races.

Adult male. Length about 6.50–6.75 inches, wing 3.80–3.85 (3.83), tail 2.6 (*Ridgway*).

Adult female. Length about 5.8–6.0 inches, wing about 3.5, tail 2.35 (*Ridgway*).

Hab. Eastern and South-eastern Texas (*Ridgway, Man.* p. 349).

| | | |
|---|---|---------------------------|
| <i>a, b</i> . ♂ ♀ ad. sk. | Texas (<i>G. B. Sennett</i>). | Henshaw Coll.
[S.-G.]. |
| <i>c-t</i> . ♂ [W. 3.6–3.9];
<i>u</i> . ♀ ad. sk. [W. 3.85]. | Corpus Christi, Texas,
Oct., Nov., Feb., March,
(<i>F. B. Armstrong</i>). | Salvin-Godman Coll. |

Subsp. ϵ . *Otocorys strigata*.

Eremophila minor, *Scl. Cat. Amer. B.* p. 126 (1862).

? *Eremophila alpestris* (*nec L.*), *Belding, Proc. U.S. Nat. Mus.* i. p. 423 (1879).

Otocoris alpestris strigata, *Hensh. Auk*, i. p. 264 (1884); *A. O. U. Check-l.* p. 240 (1886); *Ridgw. Man. N. Amer. B.* p. 349 (1887); *Merrell, Auk*, vi. p. 257 (1889).

Similar to *O. chrysolæma*, but with the yellow colour distributed over the entire breast and abdomen. The dark coloration of the back, from which circumstance the bird was named *strigata* by Mr. Henshaw, does not seem to me at all a strongly pronounced character, and the race altogether is not very well distinguished. Several specimens are marked by Messrs. Henshaw and Ridgway

as intermediate between *O. strigata* and *O. arenicola*, and many of them seem to me to be intermediate between *O. strigata* and *O. giraudi*.

Adult male. Length about 6.75-7.25 inches, wing 3.70-4.1 (3.94), tail 2.7-3.05 (2.88) (*Ridgway*).

Adult female. Length about 6.25-6.5 inches, wing 3.6-3.85 (3.61), tail 2.5-2.8 (2.62) (*Ridgway*).

Hab. Coast-district of Oregon, Washington Territory, and British Columbia; south, in winter, to portions of California and Western Nevada (*Ridgw. Man.* p. 349).

| | | |
|----------------------------------|---|---------------------------|
| a. Ad. sk. | California. | Sclater Coll. |
| b, c. ♂ ♀ ad. sk. | Gridley, Cal., Oct. 25 (<i>L. Belding</i>). | Henshaw Coll.
[S.-G.]. |
| d. ♂ ad. sk. | San Luis Obispo, Cal., Oct. 26 (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| e. ♀ ad. sk. | Marin Co., Cal., April (<i>A. Allen</i>). | Henshaw Coll.
[S.-G.]. |
| f. ♀ ad. sk. | Santa Barbara, Cal., Sept. 14 (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| g, h. ♂ ♀ ad. sk. | Albany, Oregon, Jan. 22 (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| i, k, l. ♂; m, n. ♀; o. Juv. sk. | Umatilla Agency, Oregon, Aug. (<i>H. W. H.</i>). | Salvin-Godman Coll. |
| p-g. ♂; h'-m'. ♀ ad. sk. | Carson, Nevada, Nov. (<i>H. W. H.</i>). | Salvin-Godman Coll. |

7. MELANOCORYPHA.

| | Type. |
|--|-------------------------|
| <i>Melanocorypha</i> , <i>Boie, Isis</i> , 1828, p. 322 | <i>M. calandra</i> . |
| <i>Calandra</i> , <i>Less. Compl. Buff.</i> ii. p. 120 (1837) | <i>M. calandra</i> . |
| <i>Londra</i> , <i>Sykes, P. Z. S.</i> 1838, p. 114 | <i>M. calandra</i> . |
| <i>Corydon</i> , <i>Gloger, Handb.</i> p. 234 (1842, <i>nec Lesson</i> (1828)) | <i>M. calandra</i> . |
| <i>Calandrina</i> , <i>Blyth, Journ. As. Soc. Beng.</i> xxiv. p. 265 (1859) | <i>M. bimaculata</i> . |
| <i>Nigritauda</i> , <i>Bogdanoff, Trans. N. H. Soc. Kasan</i> , viii. p. 76 (1870) | <i>M. yeltonensis</i> . |

Key to the Species.

- a.* Outer secondaries merely tipped with white.
- a'.* Outer tail-feather nearly entirely white, excepting an oblong brown mark at the base of the inner web; penultimate tail-feather white at tip and along the whole of the outer web.
- a''.* Smaller: culmen 0·65 inch, wing 5·1 inches; chest washed with buff *calandra*, p. 551.
- b''.* Much larger: culmen 0·95 inch, wing 5·7 inches; chest washed with ashy grey *maxima*, p. 554.
- b'.* Outer tail-feather tipped with a spot of white at the end of the inner web, resembling the rest of the tail-feathers in markings *himaculata*, p. 555.
- b.* Outer secondaries almost entirely white with a blackish base; crown and wing-coverts bright rufous.
- c'.* Smaller: primary-coverts rufous; no black patch on the sides of the fore neck *sibirica*, p. 557.
- d'.* Larger: primary-coverts brown; a large black patch on the sides of the fore neck *mongolica*, p. 558.
- c.* Outer secondaries not tipped with white; entire plumage black; ♀ streaked with black on the flanks..... *yeltoniensis*, p. 559.

1. *Melanocorypha calandra*.

The Calandra, *Edwards, Gleanings*, ii. p. 122, pl. 268 (1760).

La Grosse Alouette ou la Calandre, *Briss. Orn.* iii. p. 352, pl. xx. fig. 2 (1760).

Alauda calandra, *Linn. Syst. Nat.* i. p. 288 (1766); *Gm. Syst. Nat.* i. p. 799 (1788); *Meyer & Wolf, Taschenb.* p. 261 (1810); *Pall. Zoogr. Rosso-Asiat.* i. p. 517 (1811); *Temm. Man. d'Orn.* i. p. 276 (1820); *Naum. Vög. Deutschl.* iv. pl. 98. fig. 1 (1824); *Roux, Orn. Provence*, pl. 185 (1825); *Werner, Atlas, Granivores*, pl. 2 (1827); *Ménétr. Cat. Rais. Caut.* p. 37 (1832); *Gould, B. Eur.* iii. pl. 162 (1837); *Cresp. Orn. Gard*, p. 198 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 168 (1840); *Schl. Rev. Crit.* p. lx (1844); *Powys, Ibis*, 1860, p. 230; *Wright, Ibis*, 1864, p. 61; *Lilford, Ibis*, 1866, p. 185; *Bree, B. Eur.* ii. p. 195, cum fig. (1867); *Smith, Ibis*, 1868, p. 443; *Saunders, Ibis*, 1869, p. 185; *Fritsch, Vög. Eur.* tab. xvi. fig. 17 (1870); *Elwes & Buckley, Ibis*, 1870, p. 195; *Harting, Handb. Br. B.* p. 111 (1872); *Wright, Ibis*, 1874, p. 234; *Fallon, Ois. Belg.* p. 79 (1875); *Cordeaux, Ibis*, 1875, p. 181; *Finsch, Reis. West-Sibir.* p. 111 (1879); *Danf. Ibis*, 1880, p. 95; *Hornmeyer & Tancré, MT. orn. Ver. Wien*, 1883, p. 90; *Seebohm, Hist. Br. B.* ii. p. 282 (1884).

La Calandre, *Daubent. Pl. Enl.* v. pl. 363. fig. 2.

La Calandre ou Grosse Alouette, *Montb. Hist. Nat. Ois.* p. 49 (1788).

Alauda collaris, *P. L. S. Müll. Syst. Nat.*, Anhang, p. 137 (1776).

Calandre Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 382 (1783).

Melanocorypha calandra, *Boie, Isis*, 1828, p. 322; *Brehm, Vög. Deutschl.* p. 309 (1831); *Bp. Comp. List B. Eur. & N. Amer.* p. 38 (1838); *Keys. u. Blas. Wirb. Eur.* p. 153 (1840); *Mühle, Beitr. Orn. Griechenl.* p. 38 (1844); *Gray, Gen. B.* ii. p. 381 (1844); *Bp. Consp.* i. p. 242 (1850); *Cab. Mus. Hein. Th.* i. p. 23 (1850); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 470 (1856); *Jaub.*

- et Barth-Lapponm. Rich. Orn. p. 295 (1850); Tristr. Ibis, 1859, pp. 34, 425; Salm., t. c. p. 315; Linderm. Vog. Griechent. p. 50 (1860); Ggyl. Ibis, 1865, p. 58; Tristr. Ibis, 1866, p. 280; Lilford, t. c. p. 380; Drake, Ibis, 1867, p. 427; Degl. & Gerbe, Orn. Eur. i. p. 350 (1867); Luche, Expt. Sci. Alger., Ois. ii. p. 37 (1867); Tristr. Ibis, 1868, p. 208; Bögger. Vögelf. Norddeutshl. p. 70 (1869); Doderl. Arif. Sicil. p. 91 (1869); Gray, Hand-l. B. ii. p. 120, no. 7780 (1870); Salicad. Faun. Ital., Vcc. p. 131 (1871); Saunders, Ibis, 1871, p. 217; Dresser, B. Eur. iv. p. 365, pl. 238, fig. 1, pl. 239 (1871); Gould, B. Gr. Br. iii. pl. 19 (1872); Shelley, B. Egypt, p. 143 (1872); Brooke, Ibis, 1873, p. 245; Severtz. Turkest. Jevotn. pp. 66, 144 (1873); Newt. ed. Yarrell, Brit. B. i. p. 646 (1874); Irby, B. Gibr. p. 114 (1875); Danf. & Harrie Brown, Ibis, 1875, p. 311; Dresser, Ibis, 1876, p. 183; Blauf. B. East Pers. ii. p. 243 (1876); Saunders, Bull. Soc. Zool. France, ii. p. 90 (1877); Danf. Ibis, 1878, p. 21; Boqd. B. Cauc. p. 76 (1879); Devon, Ibis, 1882, p. 572; Seeh. Ibis, 1882, p. 216, 1883, p. 12; B. O. U. List Br. B. p. 72 (1883); Saunders, Ibis, 1884, p. 377; Tristr. Faun. & Flor. Palest. p. 81 (1884); Ruddle, Orn. Cauc. p. 190 (1884); Ggyl. Arif. Ital. p. 57 (1860); Salicad. Faun. Ital. p. 156 (1886); Backh. Ibis, 1887, p. 72; Tait, t. c. p. 198; Giffen. Ibis, 1888, p. 113; Ggyl. Arif. Ital. 1st Issue p. 116 (1889); Lilford, Ibis, 1889, p. 324; Clarke, t. c. p. 546.
- Melanocorypha calandra subcalandra*, Brehm, Vog. Deutschl. p. 310 (1831); id. Naum. 1850, p. 374.
- Melanocorypha calandra albigularis*, Brehm, Naum. 1850, p. 374.
- Melanocorypha calandra megarhynchos*, Brehm, t. c. p. 374.
- Melanocorypha calandra semitorquata*, Brehm, t. c. p. 374.
- Londra calandra*, Sykes, P. Z. N. 1838, p. 114.
- Melanocorypha bimaculata* (nec Menétr.), Sharpe, Ibis, 1880, p. 497 (lapsu); id. Trans. Linn. Soc. (2) Zool. v. part 3, p. 82 (1880).

Adult male. General colour above brown, with fulvescent edges to the feathers of the mantle and blackish centres to all the feathers, except those of the lower back, rump, and upper tail-coverts, which are uniform brown washed with ashy, the latter with tawny fulvous; crown of head like the back and similarly streaked, the hind neck and sides of neck a little more ashy; lesser wing-coverts uniform ashy brown; remainder of wing-coverts and quills dark brown, with tawny rufous margins not very conspicuous and washed with ashy; the inner primaries and all but the innermost secondaries tipped with white, the outer primary white along the outer web; tail-feathers dark brown with rufescent brown margins, all but the centre feathers with a slight edging of white at the ends, this white gradually increasing on the lateral tail-feathers, until on the penultimate feather there is not only a broad white tip, but the whole outer web is white with a slight rufous shade near the end; outer tail-feather entirely white, excepting for an oblique mark of brown on the base of the inner web and a rufous shade near the end of the outer web; lores and a broad eyebrow sandy white; below the eye several tiny blackish dots, which extend on to the base of the ear-coverts, which are brown with sandy-buff shaft-streaks; cheeks buffy white, spotted with dusky blackish spots; a large patch of creamy white on the sides of the neck behind the ear-coverts; entire throat white, with a large triangular black patch on each

side of the lower throat, extending downwards on to the side of the fore neck; remainder of under surface of body white, with a large brown patch on the sides of the upper breast, slightly mottled with darker brown spots and tinged with tawny rufous; the fore neck spotted with small triangular markings of black; sides of body, flanks, and thighs ashy brown with a rufous tinge; under wing-coverts and axillaries ashy grey; quills blackish below, with the same white tips as the upper surface: "bill horn-colour; feet brown; iris hazel" (*H. J. Elwes*). Total length 8 inches, culmen 0·65, wing 5·1, tail 2·4, tarsus 0·95.

The length of wing in a series of male birds is from 5·0 to 5·75 inches, and the females have the wing 4·45–4·85; so that there is a considerable interval in the dimensions between the wing of the largest female and that of the smallest male.

In addition to the smaller size, the female is generally more rufous than the male, and has the throat more plentifully spotted with black, and the black patch on the sides of the neck is smaller.

Very little variation in colour takes place in a series of the common Calandra Lark, but the spots on the chest become diminished in size as the breeding-season progresses and those on the face are obliterated. Specimens from Turkestan and other eastern countries are slightly paler and greyer than western birds.

Hab. Southern and Central Europe and the countries of the Mediterranean eastwards through Persia to Central Asia and the Altai district and south to Northern Afghanistan.

| | | |
|-------------------|---|--|
| a. Ad. sk. | [With deformed bill.] | Zoological Society. |
| b. [♂] ad. sk. | Marseilles. | Gould Coll. [Wing 4·9.] |
| c. ♂ ad. sk. | Lambesc, near Marseilles, Jan. 5. | Seebohm Coll. [Wing 5·25.] |
| d. ♀ ad. sk. | Malaga, Nov. 15 (<i>H. Saunders</i>). | Hume Coll. [Wing 4·6.] |
| e. ♀ ad. sk. | Seville, March 1 (<i>H. S.</i>). | Tweeddale Coll. |
| f, g. ♀ ad. sk. | Ruins of Carthage, Tunis, Feb. 19 (<i>O. S.</i>). | Salvin-Godman Coll. [Wings 4·45–4·6.] |
| h. [♀] ad. sk. | Italy. | Purchased. [Wing 4·65.] |
| i. ♂ ad. sk. | Italy. | Seebohm Coll. [Wing 5·1.] |
| k. ♂ ad. sk. | Rome, Jan. (<i>P. L. Sclater</i>). | India Museum [P.] [Wing 5·35.] |
| l, m. [♀] ad. sk. | Macedonia (<i>H. J. Elwes</i>). | Salvin-Godman Coll. [Wings 4·55–4·65.] |
| n. ♂ ad. sk. | Turkey, July 20 (<i>T. Robson</i>). | Shelley Coll. [Wing 5·15.] |
| o. [♂] ad. sk. | Kart Hana, Turkey, Feb. 8 (<i>W. Pearce</i>). | R. B. Sharpe, Esq. [P.] [Wing 5·4.] |
| p. ♂ ad. sk. | R. Alma, Crimea, March 23 (<i>H. J. Elwes</i>). | Seebohm Coll. [Wing 5·5.] |
| q. [♂] ad. sk. | Crimea. | Gould Coll. [Wing 5·2.] |
| r. [♂] ad. sk. | Moscow. | Purchased. [Wing 5·1.] |

| | | |
|----------------------------|---|--|
| s. ♂ ad. sk. | Domahtea, Anatolia, Feb.
(C. G. Danford). | Seebohm Coll.
[Wing 4·8.] |
| t, u. ♂ ad. sk. | Limasol, Cyprus, May 7. | Lord Lillford [P.]
[Wing 5·0.] |
| v, w. [♂ ♀] ad. sk. | Alexandria (S. S. Allen). | Hume Coll. [Wings
4·3-5·15.] |
| x. [♂] ad. sk. | Palestine (H. B. Tristram). | Shelley Coll.
[Wing 5·1.] |
| y. ♀ ad. sk. | Sudeir, Wilderness of Judæa,
Feb. 1 (H. B. T). | Tweddall Coll.
[Wing 4·9.] |
| z. ♂ ad. sk. | Plain of Sharon. | Canon Tristram [C.]
[Wing 4·95.] |
| z'. ♂ ad. sk. | Merom. | Canon Tristram [C.]
[Wing 5·25.] |
| b'. [♂] ad. sk. | Erzeroum. | Zoological Society.
[Wing 5·45.] |
| c'. Ad. sk. | Persia. | Purchased. |
| d'. ♂ ad. sk. | Shiraz, May. | Sir O. St. John [C.] |
| e'. ♀ ad. sk. | Bushire, Feb. | Sir O. St. John [C.] |
| f'. ♂ ad. sk. | Bushire, Jan. 27. | A. J. V. Palmer, Esq.
[P.] |
| g', h'. ♂ ad. sk. | Petro-Alexandrovsk, Dec.,
Jan. | Severtzoff Coll.
[Wings 5·1-5·25.] |
| i'. ♂ ad. sk. | Ala Kul, Turkestan, March
19 (Dr. O. Finsch). | Geogr. Soc. Breinen. |
| k', l. ♂; m'. ♀ ad.
sk. | Ferghana, April, May. | Severtzoff Coll. [♂
5·15-5·35, ♀ 4·65.] |
| n'. [♀] ad. sk. | Sang-bar, N. Afghanistan,
Nov. 8. | Dr. Aitchison [C.] |
| o', p'. ♀ ad. sk. | Bala Morghab, Jan. 17. | Dr. Aitchison [C.] |
| q', r', s'. Skeletons. | | Purchased. |

2. *Melanocorypha maxima*.

Melanocorypha maxima, Gould, *B. Asia*, iv. pl. 72 (1867); Blyth, *Ibis*, 1867, p. 46, note; Gray, *Hand-l. B.* ii. p. 120, no. 7785 (1870); Hume, *Str. F.* i. p. 492 (1873); Prjew. in *Rowley's Orn. Misc.* ii. p. 317 (1877); Hume, *Str. F.* 1879, p. 100; *Sci. Ibis*, 1884, p. 242. *Alauda maxima*, Seebohm, *Hist. Br. B.* ii. p. 282 (1884).

The wing in the males from the Prjewalski Collection, presented by Mr. Seebohm, measures 5·75–5·9 inches, and in the female 5·25 inches. Unfortunately the large series from the Hume Collection has scarcely any determination of the sexes. Supposed males vary in length of wing from 5·7 to 6·05 inches, and supposed females from 5·1 to 5·4 inches.

Young birds have the usual mottled plumage of immature Larks at first, but with a great deal of sulphur-yellow on the under surface, the breast being largely spotted with black. The feathers of the upper surface quickly lose their pale margins, and the head and back become almost uniform black.

Hab. Higher regions of Sikhim and the adjoining portions of Thibet to Kansu and Kokonoor.

| | | |
|---|--|-----------------------------|
| <i>a, b.</i> Ad. et pull. sk. | Sikhim. | Seebohm Coll. |
| <i>c-f.</i> Ad. sk. | Sikhim, May, Sept. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>g-s.</i> Ad.; <i>t-w.</i> Pull. sk. | Thibet frontier, Oct. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>x.</i> Ad. sk. | Thibet frontier, Sept. (<i>H. J. Elwes</i>). | Tweeddale Coll. |
| <i>y-o'.</i> Ad.; <i>p'-r'.</i> Juv. sk. | Thibet, March, May to Oct. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>w'.</i> ♂ ad. sk. | Zaidam, Nov. (<i>N. Prjewalski</i>). | Seebohm Coll. |
| <i>x'.</i> ♂ ad. sk. | Kansu, Oct. (<i>N. Prjewalski</i>). | Seebohm Coll. |
| <i>y'-a''.</i> ♂ ad.; <i>b''.</i> ♀ ad. sk. | Kokonoor, Feb., March (<i>N. Prjewalski</i>). | Seebohm Coll. |
| <i>c''.</i> ♂ ad. sk. | Kokonoor, March (<i>N. P.</i>). | St. Petersburg Museum [C.]. |

3. *Melanocorypha bimaculata*.

Alauda bimaculata, *Ménétr. Cat. Rais. Cauc.* p. 37 (1832); *E. von Homeyer, J. f. O.* 1869, p. 51; *Danf. Ibis*, 1880, p. 95; *Seebohm, Hist. Brit. B.* ii. p. 282 (1884).

Melanocorypha bimaculata, *Bp. Comp. List B. Eur. & N. Amer.* p. 37 (1838); *Gray, Gen. B.* ii. p. 381 (1844); *Sharpe, Ann. & Mag. Nat. Hist.* (4) viii. p. 180 (1871); *Dresser, B. Eur.* iv. p. 361, pl. 238, figs. 2, 3 (1871); *Severtz. Turkest. Jevotn.* pp. 67, 143 (1873); *Blanf. East. Persia*, ii. p. 244 (1876); *Dresser, Ibis*, 1876, p. 183; *Danf. Ibis*, 1878, p. 21; *Bogd. B. Cauc.* p. 76 (1879); *Hume, Str. F.* 1879, p. 109; *Biddulph, Ibis*, 1881, p. 89; *Scully, t. c.* p. 580; *C. Swinh. Ibis*, 1882, p. 115; *Seeb. Ibis*, 1883, p. 12; *Tristr. Faun. & Flor. Palest.* p. 81 (1884); *Raddle, Orn. Cauc.* p. 201 (1884); *St. John, Ibis*, 1889, p. 173.

Melanocorypha calandra (*nec L.*), *Rüpp. Syst. Uebers.* p. 78 (1845, pt.).

Melanocorypha torquata, *Blyth, J. A. S. Beng.* xvi. p. 476 (1847); *id. Ibis*, 1867, pp. 46, 47; *Beavan, Ibis*, 1868, p. 180; *Hume, Ibis*, 1868, p. 239; *Blyth, t. c.* p. 355; *Gray, Hand-l. B.* ii. p. 120, no. 7782 (1870); *Hume & Henders. Lahore to Yark.* p. 265, pl. 27 (1873); *Adam, Str. F.* 1873, p. 389; *Scully, Str. F.* 1876, p. 173.

Melanocorypha alboterminata, *Cab. Mus. Hein. Th.* i. p. 124 (1853); *Heugl. J. f. O.* 1868, p. 221; *id. Orn. N.O.-Afr.* i. pl. 2, p. 675 (1870); *Gray, Hand-l. B.* ii. p. 120, no. 7784 (1870).

Alauda calandra (*nec L.*), *Midd. Reis. Sibir., Zool.* p. 132 (1851).

Melanocorypha rufescens, *Brehm, Vogelf.* p. 120 (1855).

Melanocorypha bimaculata, *β. minor*, *Severtz. Turkest. Jevotn.* p. 67 (1873); *Dresser, Ibis*, 1876, p. 188.

Adult male. Similar to *M. calandra*, but of a more tawny appearance, and with generally a distinctly indicated pale mantle. It is easily separated by the colour of the tail, all the feathers having a large white spot at the tip of the inner web, the outer tail-feather not being entirely white, but resembling the other ones excepting that it is white along the outer web. The outer tail-feather of *M. bimaculata* resembles the penultimate feather of *M. calandra*. "Bill horny brown or blackish horny on upper mandible, the lower one greenish horny, changing to yellow at base and gape; legs and feet fleshy, or yellowish fleshy, more or less dusky at joints; claws dusky; iris brown, in some light brown" (*A. O. Hume*). Total length 7 inches, culmen 0.75, wing 4.85, tail 2.2, tarsus 1.

The males have the wing 4.6 to 4.9 inches, and the females vary from 4.2 to 4.5 inches in length of wing. There is no difference in the colour of the sexes.

In the winter plumage the general tone of the colour is somewhat greyer, and the light edgings to the wing-coverts are broader, but there is very little seasonal change in the species.

Hab. From North-eastern Africa to Syria and Asia Minor, thence to the Caucasus and Persia to Central Asia as far as Irkutsk and Krasnoyarsk, and south to Afghanistan and North-western India.

| | | |
|--------------------------|---|---------------------------|
| <i>a.</i> Ad. sk. | Abyssinia. | Sharpe Coll. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Anascha, Taurus, March, April (<i>C. G. Danford</i>). | Seebohm Coll. |
| <i>d.</i> ♂ ad. sk. | Anascha, April 6 (<i>C. G. D.</i>). | Salvin-Godman Coll. |
| <i>e.</i> ♂ ad. sk. | S.W. of Karman, S. Persia, May 22. | W. T. Blanford, Esq. [P.] |
| <i>f.</i> ♂ ad. sk. | Kokand, C. Asia (<i>Dr. Severtzoff</i>). | Tweeddale Coll. |
| <i>g.</i> ♂ ad. sk. | Ferghana, May 22. | Severtzoff Coll. |
| <i>h.</i> ♀ ad. sk. | Turkestan, May 30. | Severtzoff Coll. |
| <i>i.</i> ♀ ad. sk. | Yarkand, Feb. (<i>J. Scully</i>). | Hume Coll. |
| <i>k, l.</i> ♂ ♀ ad. sk. | Gulran, N. Afghanistan, | Dr. Aitchison [C.] |

| | | |
|--|---|---------------------|
| <i>d', e'</i> . ♂ ♀ ad. sk. | Gurgaon district, Jan.
(<i>W. N. Chill</i>). | Hume Coll. |
| <i>f'</i> . Ad. sk. | Bhawulpur, Jan. 15 (<i>C. H. T. M.</i>). | Hume Coll. |
| <i>g'-a''</i> . ♂; <i>b''-h''</i> .
♀ ad. sk. | Sirza district, Punjab,
Nov., Dec, Jan. (<i>A. O. H.</i>). | Hume Coll. |
| <i>i''</i> . Ad. sk. | Peshawur. | Col. Way. |
| <i>k''</i> . ♀ ad. sk. | Gilgit, Nov. 10, 5000 ft. | Col. Biddulph [C.]. |
| <i>l''-n''</i> . ♂ ad. sk. | Umbala, Feb. (<i>Dr. Scott</i>). | Tweeddale Coll. |
| <i>o''-r''</i> . Ad. sk. | Etawah, Dec., Jan. (<i>A. O. H. & W. E. B.</i>). | Hume Coll. |
| <i>s''-u''</i> . ♂ ad. sk. | Dhurous, Dec. (<i>A. Anderson</i>). | Seebohm Coll. |
| <i>v''</i> . ♂ ad. sk. | Hurdui, Jan. 16 (<i>A. A.</i>). | Seebohm Coll. |
| <i>w'', x''</i> . ♂ ♀ ad. sk. | Kishmi, Oudh, Dec. 20 (<i>A. A.</i>). | Seebohm Coll. |

4. *Melanocorypha sibirica*.

Alauda calandra (*nec L.*), *Pall. Reis. Russ. Reichs*, ii. p. 708 (1773), iii. p. 697, note (1776).

White-winged Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 383 (1783).

Alauda sibirica, *Gm. Syst. Nat.* i. p. 799 (1788); *Schl. Rev. Crit.* p. lx (1844); *Radde, Reis. Sibir., Vög.* p. 146, note (1863); *Bree, B. Eur.* ii. pl. to p. 200 (1866); *Elwes & Buckley, Ibis*, 1870, p. 195; *Harting, Handb. Brit. B.* p. 111 (1872); *Finsch, Reis. W.-Sibir.* p. 111 (1879); *Seeb. Hist. Brit. B.* ii. pp. 279, 282 (1884); *Saunders, Illustr. Man. Brit. B.* p. 247 (1889).

Alauda leucoptera, *Pall. Zoogr. Rosso-Asiat.* i. p. 518, tab. xxxiii. fig. 2 (1811); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 170 (1840); *Gray, Gen. B.* ii. p. 380 (1844); *Fritsch, Vög. Eur.* tab. xvi. fig. 14 (1870); *Homeyer & Tancré, MT. orn. Ver. Wien*, 1883, p. 90.

Phileremos sibirica, *Keys. & Blas. Wirb. Eur.* p. 153 (1840); *Borggr. Vogelf. Norddeutschl.* p. 70 (1869).

Melanocorypha leucoptera, *Bp. Consp.* p. 243 (1850); *Gray, Hand-l. B.* ii. p. 120, no. 7783 (1870); *Severtz. Turkest. Jevotn.* p. 67 (1873); *Gould, B. Gt. Brit.* iii. pl. 20 (1873); *Seeb. Ibis*, 1882, p. 217; *Irby, Key List Brit. B.* p. 21 (1888).

Calandra leucoptera, *Dubois, Ois. Belg.* pl. 102 b (1858).

Melanocorypha sibirica, *Degl. et Gerbe, Orn. Eur.* i. p. 352 (1867); *Rowley, P. Z. S.* 1870, p. 52; *id. Zool.* 1870, p. 2066; *Bond, t. c.* p. 2022; *Dresser, B. Eur.* iv. p. 373, pl. 240 (1873); *Newton, ed. Yarrell*, i. p. 642 (1874); *Danford & Harvie-Brown, Ibis*, 1875, p. 311; *Dresser, Ibis*, 1876, p. 183; *Gigl. Ibis*, 1881, p. 200; *B. O. U. List Brit. B.* p. 73 (1883); *Seeb. Ibis*, 1883, p. 12; *Radde, Orn. Cauc.* p. 204 (1884); *Salvad. Elench. Ucc. Ital.* p. 156 (1886); *Gigl. Av. Ital.* p. 57 (1886), and 1st *Resoc.* p. 119 (1889).

Pallasia leucoptera, *E. von Homeyer, J. f. O.* 1873, p. 190.

Calandrella leucoptera, *Bogd. B. Cauc.* p. 76 (1879).

Adult male. Above brown, streaked with median blackish centres to the feathers of the back and rump; upper tail-coverts ferruginous brown towards the edges, which are margined with white; lesser wing-coverts bright ferruginous, forming a large shoulder-patch; median and greater series blackish brown, with ferruginous

edges, primary-coverts uniform ferruginous; quills dark brown, the primaries edged with pale rufous at the ends, the inner ones white at the tips of the inner web, the secondaries white with a blackish base, the innermost secondaries brown with ferruginous edgings; tail-feathers dark brown, with ferruginous margins, very broad on the centre feathers, the rest edged with white along both webs, increasing in extent towards the outer feathers, the outermost feather being entirely white; crown of head ferruginous, the hinder crown streaked with blackish like the hind neck, which is ashy like the sides of the neck; lores, feathers around and below the eye, as well as a distinct eyebrow, creamy white; below the eye a slight tinge of rufous, followed by a patch of white on the anterior ear-coverts, the hinder ear-coverts ferruginous, with dusky streaks; cheeks and throat white, with a row of dusky triangular spots along the malar line, and some more tiny spots on the upper margin of the cheeks; the dusky spots on the fore neck rather larger; remainder of under surface of body white, with a tawny tinge on the thighs and sides of the breast, the latter mottled with blackish centres to the feathers, and the sides of the body distinctly streaked with dark brown; axillaries and under wing-coverts white, with a roddish tinge along the end of the wing. Total length 7 inches, culmen 0.55, wing 4.7, tail 2.5, tarsus 0.9.

Adult female. Similar to the male, but differing in the colour of the head and ear-coverts, which are ashy brown streaked with black like the back, and only slightly tinged with rufous: the spots on the side of the face and on the throat are more plentiful and more strongly developed than in the male. Total length 6.8 inches, culmen 0.45, wing 4.8, tail 2.25, tarsus 0.85.

The males have the wing from 4.55–4.9 inches, and the females from 4.0 to 4.4.

Hab. South-eastern Russia, west in winter to Turkey and even to Italy, having also occurred once in England. Eastwards through Central Asia to the Jenesci.

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|-------------------|---------------------------------------|----------------------|
| a, b. ♂ ♀ ad. sk. | Haskeny, Turkey, Jan.
(T. Robson). | Gould Coll. |
| c, d. ♂ ♀ ad. sk. | Southern Russia, April. | Hume Coll. |
| e. ♂ ad. sk. | Crimea. | Capt Blakiston [P.]. |
| f. ♀ ad. sk. | Sarepta. | Mr Brandt. |
| g. ♂ ad. sk. | Orenburg. | Mr. Brandt. |
| h. ♀ ad. sk. | Russia, April 3 (Dr.
Severtzoff). | Tweeddale Coll. |
| i. ♂ ad. sk. | Guriey, Nov. 18 (Dr.
Severtzoff) | Tweeddale Coll. |
| k, l. ♂ ♀ ad. sk. | Chimkent, Syr Daria,
Jan. 3. | Severtzoff Coll. |

5. *Melanocorypha mongolica.*

Alauda mongolica, *Pall Reis. Russ Reichs*, iii p. 607 (1776); *Gm. Syst. Nat.* i. p. 700 (1788); *Pall. Zoogr. Rosso-Asiat.* i. p. 516, Taf. xxxii fig 1 (1811), *Sieb Hist. Brit. B.* ii. p. 282 (1844).
Mongolian Lark, *Luth. Gen. Syn.* ii pt 2, p. 384 (1783).
Alauda sinensis, *Waterh. P. Z. S.* 1839, p. 60.

- Melanocorypha mongolica*, Gray, *Gen. B.* ii. p. 381 (1844); *Bp. Consp.* p. 243 (1850); *Sicinh. Ibis*, 1861, p. 333; *id. P. Z. S.* 1863, p. 271; *id. Ibis*, 1867, p. 232; Gray, *Hand-l. B.* ii. p. 120, no. 7781 (1870); *Taczan. J. f. O.* 1874, p. 318; *id. Bull. Soc. Zool. France*, i. p. 160 (1876); *Prejv. in Rowley's Orn. Misc.* ii. p. 316 (1877); *David & Oust. Ois. Chine*, p. 319, pl. 88 (1877).
Alauda (Melanocorypha) mongolica, Radde, *Reis. Sibir., Vög.* ii. p. 146, Taf. iii. fig. 1 (1863).
Pallasia mongolica, E. von Homeyer, *J. f. O.* 1873, p. 190; Sharpe, *P. Z. S.* 1874, p. 635.

Adult male. Similar to *M. sibirica*, but larger, with more white on the outer secondaries, which have only a small base of black; primary-coverts brown, with pale margins like the primaries; on the sides of the fore neck a large patch of black which meets across the fore neck and forms a distinct collar, very narrow in the centre; crown of head and hind neck rufous or chestnut, with a light patch in the centre of the crown; a broad white eyebrow produced backwards till it joins a creamy-buff band round the nape: "bill clear flesh-colour; legs and feet reddish brown; toes reddish yellow; claws brown; iris ashy brown" (*A. David*). Total length 8·2 inches, culmen 0·8, wing 5·3, tail 3·2, tarsus 1.

The wings of the series of Mongolian Larks in the Museum range from 4·9 to 5·0 inches, and from 5·25 to 5·4 inches. The former are probably female birds, but unfortunately none are marked. The larger birds are marked as males.

In winter plumage the light patch on the head is much more extensive, and the whole of the upper surface is much more fulvescent; the black on the fore neck is interrupted in the middle. There is a decided ashy shade on the margins of the feathers of the upper surface, which disappears as these edges become abraded in summer.

Hab. Eastern Siberia to Northern China and Kokonoor.

| | | |
|---------------------------|--|---|
| <i>a.</i> Ad. sk. | China. | J. R. Reeves, Esq. [P.]
(Type of <i>A. sinensis</i> .) |
| <i>b.</i> ♂ ad. sk. | Pekin, Dec. (<i>R. Swinhoe</i>). | Seebohm Coll. |
| <i>c, d, e.</i> Juv. sk. | Pekin, July (<i>R. Swinhoe</i>). | Seebohm Coll. |
| <i>f.</i> Ad. sk. | Tientsin, Dec. (<i>R. Swinhoe</i>). | Seebohm Coll. |
| <i>g.</i> ♂ ad. sk. | Argun River, Dauria, March 29 (<i>Dybowsky</i>). | Warsaw Mus. [E.]. |
| <i>h, i.</i> ♂ ad. sk. | Gobi desert (<i>N. Prjewalski</i>). | Seebohm Coll. |
| <i>k, l, m.</i> ♂ ad. sk. | Kokonoor, March, April, July (<i>N. Prjewalski</i>). | Seebohm Coll. |

6. *Melanocorypha yeltoniensis*.

- Alauda yeltoniensis*, Forst. *Phil. Trans.* lvii. p. 350 (1767); *Finsch, Verhandl. zool.-bot. Gesellsch. Wien*, xxix. p. 224 (1879).
Alauda tatarica, Pall. *Reis. Russ. Reichs*, ii. Anhang, p. 707 (1773); *Gm. Syst. Nat.* p. 795 (1788); *Temm. Man. d'Orn.* i. p. 275; *Vieill. Gal. Ois.* i. p. 259, pl. 160 (1825-34); *Werner, Atlas, Granivores*, pl. 1 (1827); *Gould, B. Eur.* iii. pl. 161 (1837); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 170 (1840); *Schl.*

Rev. Crit. p. lx (1844); *Middend. Reis. Sibir.*, Zool. p. 133 (1851); *Bree, B. Eur.* iii. p. 192 (1867); *Fritsch, Vog. Eur.* tab. xvi. fig. 16 (1870); *Cordeaux, Ibis*, 1875, p. 181; *Hornmeyer & Tancrét, M.T. orn. Ver. Wien*, 1883, p. 90; *Seeb. Hist. Brit. B.* ii. p. 282 (1884).

Black Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 880 (1783).

Mutable Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 381 (1783).

Tanagra sibirica (nec Gm.), *Sparrm. Mus. Carol.* i. pl. 19 (1786).

Alauda mutabilis, *Gm. Syst. Nat.* i. p. 796 (1788).

Le Tracal, *Levaill. Ois. d'Afr.* iv. p. 119, pl. 191 (1805).

Alauda nigra, *Stephens, in Shaw's Gen. Zool.* xiv. p. 25 (1820).

Melanocorypha tartarica, *Boie, Isis*, 1828, p. 322; *Bp. Comp. List B.*

Eur. & N. Amer. p. 33 (1838); *Keys. & Blas. Wirb. Eur.* p. 153

(1840); *Gray, Gen. B.* ii. p. 381 (1844); *Degl. et Gerbe, Orn. Eur.*

i. p. 353 (1867); *Gray, Hand-l. B.* ii. p. 120, no. 7786 (1870);

Severtz. Turkest. Jevotn. p. 67 (1873); *Seeb. Ibis*, 1882, p. 217,

1883, p. 12; *Radde, Orn. Cauc.* p. 203 (1884).

Saxilauda tartarica, *Lesson, Compl. Buff. Ois.* ii. p. 125 (1837).

Melanocorypha yeltoniensis, *Bp. Comp. i.* p. 242 (1850); *Dresser, B.*

Eur. iv. p. 377, pl. 241 (1871); *id. Ibis*, 1876, p. 183; *Gigl. Ibis*,

1881, p. 183; *Salvad. Elench. Ucc. Ital.* p. 157 (1886); *Gigl. Avif.*

Ital. p. 57 (1888); *id. Avif. Ital. 1st Resoc.* p. 118 (1889).

Nigritauda nigra, *Bogdanoff, B. Cauc.* p. 76 (1879).

Adult male in summer plumage. Almost entirely black everywhere, with obsolete sandy-buff fringes to a few feathers of the back. But for those, scarcely perceptible, markings, and the somewhat paler brown tips to the quills, the plumage would be absolutely black. Total length 7·5 inches, culmen 0·75, wing 5·15, tail 2·85, tarsus 0·9.

In winter plumage the male is black, but the whole of the feathers are obscured by broad edgings of sandy colour. By the wearing off of these margins the full black plumage is attained.

Adult female. Different from the male, and more resembling an ordinary Calandra Lark. Ochreous brown, with dark centres to the feathers, the crown mottled with black; quills blackish, with whitish-brown edges, whiter on the primaries; under surface of body white, with a sandy-buff tinge on the throat; the fore neck, breast, and sides of body spotted with black, some of the markings rather longitudinal, and some somewhat the shape of the letter S.

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|---------------------------------------|---|---------------------|
| <i>f, g.</i> ♂ ♀ ad. sk. | Guriev, Nov., Dec. (<i>Dr. Severtzoff</i>). | Tweeddale Coll. |
| <i>h.</i> ♂ ad. sk. | Ur, Caspian Sea (<i>Karelin</i>). | Seeböhm Coll. |
| <i>i.</i> ♂ ad. sk. | Kara-Rum, Jan. 20 (<i>Dr. Severtzoff</i>). | Seeböhm Coll. |
| <i>k, l.</i> ♂ ♀ ad. sk. | Kirghiz Steppes. | Seeböhm Coll. |
| <i>m.</i> ♂ ad. sk. | Kirghiz Steppes. | Hume Coll. |
| <i>n, o, p.</i> ♂ ad. sk. | Kasalinsk (<i>Russow</i>). | Seeböhm Coll. |
| <i>q.</i> Pull. sk. | Arkad Mountains, near Sentipalatinsk, May 4 (<i>Dr. O. Finsch</i>). | Geogr. Soc. Bremen. |
| <i>r.</i> ♂ ad.; <i>s.</i> ♀ juv. sk. | Türkestan, Jan., Feb. | Severtzoff Coll. |
| <i>t, u.</i> Skeletons. | Volga. | Mr. Brandt. |

8. TEPHROCORYS.

Tephrocorys, *Sharpe, P. Z. S.* 1874, p. 633 Type.
T. cinerea.

Range. North-eastern and Southern Africa.

Key to the Species.

- a.* Crown of head uniform rufous, not streaked; a large patch of ferruginous, but no black patch on the sides of the chest; light pattern of outer tail-feather pure white. } *cinerea*, p. 561.
b. Crown of head rufous, with black stripes, especially distinct on the occiput; entire fore neck and chest tawny rufous, with a black patch on each side of the fore neck; light pattern of outer tail-feather fulvescent } *spleniata*, p. 563.
..... } *ruficeps*, p. 563.
..... } *anderssoni*, p. 564.

1. *Tephrocorys cinerea.*

La Cendrille, Month. Hist. Nat. v. p. 64 (1778).

Cinereous Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 388 (1783).

Alauda cinerea, Gm. Syst. Nat. p. 798 (1788); *Bp. Consp.* p. 244 (1850); *Scl. P. Z. S.* 1866, p. 23; *Sharpe, Cat. Afr. B.* p. 71 (1871); *Buckley, Ibis*, 1874, p. 383; *Ayres, Ibis*, 1880, p. 264.

La petite Alouette à tête rousse, Lertuill. Ois. d'Afr. iv. p. 137, pl. 199 (1805); *Sunder. Krit. om Lertuill.* p. 46 (1857).

Megalophonus cinereus, Grtvy, Gen. B. ii. p. 382 (1844); *Layard, B. S. Afr.* p. 212 (1867); *Ayres, Ibis*, 1869, p. 205; *Gray, Hand-l. B.* ii. p. 122, no. 7825 (1870); *Gurney, in Anderss. B. Dam.-Ld.* p. 107 (1872); *Ayres, Ibis*, 1878, p. 410; *Holub & von Pelz. Beitr. Orn. Südafr.* p. 138 (1882).

Calandrella cinerea, Licht. Nomencl. Av. p. 30 (1854); *Gurney, Ibis*, 1864, p. 353.

Tephrocorys cinerea, Sharpe, P. Z. S. 1874, p. 633; *id. in Oates's Matabele-Land*, App. B, p. 318 (1882); *Butler, Feilden, & Reid, Zool.* 1882, p. 302; *Sharpe, ed. Layard's B. S. Afr.* pp. 511, 851 (1884).

Calandrella cinerea, Salvin, Cat. Strickl. Coll. p. 256 (1882, pt.).

Adult male in winter plumage. Above ashy, mottled with dark brown centres to the feathers, some of the dorsal plumes washed with sandy colour; crown of head bright chestnut, forming a cap, some of the feathers slightly margined with fulvous; hind neck decidedly ashy, paler than the back, and forming a kind of collar; wing-coverts ashy brown, with broad fawn-coloured margins, forming a conspicuous shoulder-patch; the greater and primary-coverts ashy brown, with ashy-fulvous edgings; quills dark brown, margined with ashy fulvous, inclining to rufous near the base of the feathers; the outer primary with a broad external margin of creamy white; upper tail-coverts rufous fawn-colour, the longest shaded with brown down the middle; tail-feathers dark brown, the penultimate and outer feather edged with white, occupying the whole external web of the latter; the two central tail-feathers margined with ashy brown; small frontal plumes whitish; lores and a distinct eyebrow white, as also the feathers under the eye and cheeks, the latter slightly spotted with brown; ear-coverts pale rufous; sides of neck clear ashy grey; throat white; rest of under surface also white; the middle of the breast ashy fulvous; the sides of the upper breast bright chestnut, forming a patch on both sides; sides of body inclining to ashy fulvous; under wing-coverts pale ashy grey; the edge of the wing fulvous white; inner lining of wing ashy brown, the inner webs of the quills slightly rufescent towards the base: "bill black, the base brown; legs dark brown; iris dark hazel" (*T. E. Buckley*). Total length 6.2 inches, culmen 0.55, wing 3.9, tail 2.7, tarsus 0.85.

Adult female. Coloured like the male. Total length 6.2 inches, culmen 0.5, wing 3.65, tail 2.6, tarsus 0.85.

Hab. South Africa.

| | | |
|-------------------------------|---------------------------------------|-----------------------|
| <i>a.</i> Ad. sk. | Cape Colony (<i>Butler</i>). | Shelley Coll. |
| <i>b.</i> Ad. sk. | Cape Colony. | Sir A. Smith [C.]. |
| <i>c, d.</i> Ad. sk. | Cape Town, July. | C. J. Andersson [C.]. |
| <i>e, f.</i> Ad. sk. | Colesberg. | A. F. Ortlepp [C.]. |
| <i>g.</i> ♀ ad. sk. | Eland's Post (<i>T. C. Atmore</i>). | Shelley Coll. |
| <i>h.</i> Juv. sk. | Grahamstown (<i>E. L. Layard</i>). | Sharpe Coll. |
| <i>i, k.</i> ♀ ad.; <i>l.</i> | British Kaffraria, Sept., Oct. | Shelley Coll. |
| <i>m.</i> Juv. sk. | (<i>F. A. Harratt</i>) | |

Subsp. *a*. **Tephrocorys spleniata.**

Alauda spleniata, *Strickl. Contr. Orn.* 1852, p. 152; *Chapm. Trav.*, App. p. 400 (1868).

Megalophonus cinereus (*nec Gm.*), *Gurney in Anderss. B. Dam.-Ld.* p. 197 (1872, pt.).

Tephrocorys spleniata, *Sharpe, ed. Layard's B. S. Afr.* p. 511 (1883).

Calandritis cinerea (*nec Gm.*), *Bocage, Orn. Angola*, p. 373 (1881).

Calandrella cinerea (*nec Gm.*), *Salv. Cat. Strickl. Coll.* p. 253 (1882, pt.).

Tephrocorys cinerea (*nec Gm.*), *Büttik. Notes Leyd. Mus.* x. p. 241 (1888).

Adult (type of species). Similar to the winter plumage of *T. cinerea*, but very much paler everywhere, the rufous of the crown, the rump, wing-coverts, and sides of chest being of light cinnamon instead of deep ferruginous or chestnut: "bill yellowish brown; legs and toes brown" (*C. J. Andersson*). Total length 5·8 inches, culmen 0·55, wing 3·6 (moulting), tail 2·1, tarsus 0·8. (*Mus. Cantabr.*)

Hab. Northern Damara-Land to Benguela.

2. **Tephrocorys ruficeps.**

Alauda ruficeps, *Rüpp. Neue Wirb., Vög.* p. 102, Taf. 38. fig. 1 (1835); *Gray, Gen. B.* ii. p. 380 (1844).

Megalophonus ruficeps, *Rüpp. Syst. Uebers.* p. 79 (1845); *Bp. Consp.* i. p. 243 (1850); *Heugl. Syst. Uebers.* p. 44 (1856); *Gray, Hand-l. B.* ii. p. 122, no. 7826 (1870).

Calandritis ruficeps, *Cab. J. f. O.* 1866, p. 307; *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 698 (1870); *Salvad. Ann. Mus. Genov.* (2) i. p. 170 (1884).

Calandrella anderssoni (*nec Tristr.*), *Blanf. Geol. & Zool. Abyss.* p. 389 (1870).

Alauda anderssoni (*nec Tristr.*), *Finsch, Trans. Z. S.* vii. p. 327 (1870).

Calandritis anderssoni, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 699 (1870).

Calandrella ruficeps, *Salvad. Ann. Mus. Genov.* (2) vi. p. 268 (1888).

Adult male. Similar to *T. cinerea*, but distinguished by the fulvescent outer web of the external tail-feather, and the black streaks on the crown, which are very distinct on the nape and hind neck, and by the rufous of the chest being continued down on to the flanks; on the sides of the neck a very distinct mark of black: "bill dusky, the mandible yellowish fleshy; feet reddish" (*Von Heuglin*). Total length 5·6 inches, culmen 0·6, wing 3·7, tail 2·1, tarsus 0·85.

Hab. N.E. Africa.

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|------------------------|---|---------------------------|
| <i>a.</i> Ad. sk. | Abyssinia. | Dr. Rüppell [C.]. |
| <i>b.</i> Ad. sk. | Abyssinia (<i>J. W. von Müller</i>). | Shelley Coll. |
| <i>c.</i> ♂ ad. sk. | Senafé, Tigre, Feb. 24. | W. T. Blanford, Esq. [C.] |
| <i>d.</i> ♂ ad. sk. | Angollala, Shoa, May (<i>Sir W. C. Harris</i>). | India Museum. |
| <i>e, f.</i> ♂ ad. sk. | Shoa, June, Oct. (<i>O. Antinori</i>). | Shelley Coll. |

Subsp. *a.* ***Tephrocorys anderssoni*.**

Megalophonus anderssoni, *Tristr. Ibis*, 1869, p. 434, 1870, p. 444;
Gray, Hand-l. B. ii. p. 122, no. 7824 (1870); *Gurney in Anderss.*
B. Dam.-Ld. p. 198 (1872).

Adult. Similar to *T. cinerea*, but having the rufous of the sides of the breast continued down the sides of the body and over the thighs and under tail-coverts; the outer tail-feather is buffy whitish along the outer web, like *T. ruficeps*. Total length 5·6 inches, culmen 0·55, wing 3·5, tail 2·1, tarsus 0·8.

Hab. Damara-Land.

a. Ad. sk. Otjimbingue, March 10 (C. J. Tweeddale Coll. *Andersson*).

9. **SPIZOCORYS.**

Spizocorys, *Sunder. Av. Meth. Tent.* p. 55 (1873) Type. *S. conirostris*.



Head of *Spizocorys conirostris*.

Range. South Africa from the Transvaal to Great Namaqua-Land and Ondonga.

1. ***Spizocorys conirostris*.**

Alauda conirostris, *Sunder. Cfr. K. Vet.-Akad. Förh. Stockh.* 1850, p. 99; *Rp. Consp.* i p. 244 (1850); *Gray, Hand-l. B. ii.* p. 118, no. 7727 (1870); *Sunder. Cat. Afr. B.* p. 72 (1871); *Gurney in*

coverts brown, broadly margined with sandy buff, the lesser and median series so broadly as nearly to obscure the dark brown centres to the feathers, the greater coverts with a slight greyish shade on their outer margins; quills lighter brown, with a slight ashy shade, the feathers margined with sandy buff, paling on the extreme edge of the feather, the outer edge of the first primary sandy white for nearly the entire length of the quill; tail blackish, tipped with dull white, with ashy-fulvous margins, broader on the centre feathers, which are paler and nearly uniform brown, the two outer feathers margined with sandy buff, occupying part of the inner web and the tip of the outermost; a distinct line of white over and under the eye, with a small patch of blackish feathers in front of the latter; ear-coverts brown, blackish on upper margin; cheeks white, washed with pale brown on hinder margin, and spotted with black, a narrow line of which runs from the gape to the ear-coverts: throat pure white, with a few black spots on lower portion; rest of under surface of body sandy rufous, paler and more fulvous on the lower abdomen, the fore neck and chest rather largely spotted with triangular spots of blackish brown; under wing-coverts sandy buff, the lower series inclining to ashy and resembling the inner lining of the wing: "bill pale ashy, with the ridge very light brown; tarsi and feet pale flesh-colour; iris hazel" (*T. Ayres*). Total length 4·7 inches, culmen 0·5, wing 3, tail 1·75, tarsus 0·75.

For remarks on the *winter plumage* and changes undergone by this species I must refer to my paper on African Larks (*P. Z. S.* 1874, p. 631), as no new material has come to hand since that date.

Young. Above dark brown, the feathers washed with sandy colour and tipped with white, the hind neck inclining to ashy grey, the white tips almost imperceptible; wing-coverts dull brown, margined with sand-colour, and ending in a white tip; quills and tail much as in adult, but inclining to whitish at the tip of the feathers; lores dusky blackish; sides of face nearly uniform brown, with a blackish streak running along the upper margin of the ear-coverts and down the cheeks; under surface pale isabelline, the throat spotted with dusky, and having on each side a moustachial streak of the same, the breast inclining to sandy brown on the sides and obscurely spotted with dusky.

Mr. Andersson observes that the "iris is brown; the legs and bill flesh-coloured, but the lower mandible paler and more livid than the upper."

Hab. The same as that of the genus.

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| a. ♀ ad. sk. | Potchefstroom, June 14 (<i>T. Ayres</i>). | Sharpe Coll. |
| b. ♀ ad. sk. | Megaliesberg, Oct. 28 (<i>J. Wahlberg</i>). | Sharpe Coll. |
| c, d, e. ♂ ♀ ad. et
juv.: f. ♀ ad. sk. | Great Namaqua-Land, May, June
(<i>C. J. Andersson</i>). | Sharpe Coll. |
| g. ♀ ad. sk. | Ondonga, Ovampo-Land, Nov. (<i>C. J. A.</i>). | Sharpe Coll. |

10. ALAUDA.

Type.

Alauda, Linn. *Syst. Nat.* i. p. 287 (1706)..... *A. arvensis*.

Range. The greater part of Europe and Asia, not penetrating to the south of the Burmese countries.

Alauda arvensis and its allies.

The number of species of Sky-Lark has always been difficult to determine. Any one comparing a specimen of the ordinary European species with a Sky-Lark from Japan or the plains of North-western India, would say that the differences in size and colour at once separate them; but on carefully examining a series such as the Museum now possesses, it would be found that every possible intermediate link between these races is represented, and that no exact line can be drawn between any of the so-called species of Sky-Lark.

It may be convenient to divide them into two sections, represented by *Alauda arvensis* and *A. gulgula*. In the latter section the bill is thinner and the rufous on the wing is more emphasized. Were there no such form as *A. liopus*, these two Sky-Larks would appear to be quite distinct, for the shape of the bill in *A. arvensis* is different from that of *A. gulgula**, while in form of bill *A. cantarella* resembles *A. arvensis*, but in plumage it differs in being greyer. There are many specimens, however, of which it is impossible to say whether they should be referred to *A. arvensis* or *A. cantarella*. In the mountains of Cashmere occurs another small race of Sky-Lark, *A. guttata* of Brooks, which is evidently *A. liopus* of Hodgson, and to this must be added *A. japonica* of Temminck and Schlegel, for there are specimens from the Eastern Himalayas which exactly resemble Japanese specimens. *A. blakistoni* is merely a large race of *A. japonica*.

Of the slender-billed section of Sky-Larks, *A. gulgula* may be taken as the type, and *A. calivox* must be united to it. In India the southern birds are much darker (*A. australis* of Brooks), but

1. *Alauda arvensis*.

- The Sky-Lark, *Albin, N. H. Birds*, i. p. 39, pl. 41 (1738); *Lath. Gen. Syn.* ii. pt. 2, p. 368 (1783); *Yarr. Br. B.* i. p. 409 (1843).
 The Black Lark, *Albin, N. H. Birds*, iii. pl. 51 (1740).
 L'Alouette, *Briss. Orn.* iii. p. 335 (1760); *Daubent. Pl. Enl.* v. pl. 363. fig. 1; *Montb. H. N. Ois.* v. p. 1 (1778).
 L'Alouette d'Italie, *Briss. Orn.* iii. p. 355 (1760).
Alauda arvensis, *Linn. Syst. Nat.* i. p. 287 (1766); *Gm. S. N.* i. p. 791 (1788); *Temm. Man.* i. p. 281 (1820); *Naum. Vög. Deutschl.* iv. pl. 100. fig. 1 (1824); *Rour, Orn. Prov.* pls. 180, 181 (1825); *Werner, Atlas, Granivores*, pl. 5 (1827); *Brehm, Vög. Deutschl.* p. 320 (1831); *Ménétr. Cat. rais. Cauc.* p. 39 (1832); *Gould, B. Eur.* iii. pl. 166 (1837); *Bp. Comp. List*, p. 37 (1838); *Macgill. Br. B.* ii. p. 163 (1839); *Crespon, Orn. Gard*, p. 191 (1840); *Keys. u. Blas. Wirb. Eur.* p. 151 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 164 (1840); *Selys-Longch. Faun. Belg.* p. 84 (1842); *Schl. Rev. Crit.* p. lix (1844); *Gray, Gen. B.* ii. p. 380 (1844); *Hewits. Eggs Br. B.* i. p. 137, pl. 37. figs. 1, 2 (1846); *Thomps. B. Irel.* i. p. 231 (1849); *Bp. Consp.* i. p. 245 (1850); *Middend. Reis. Sibir., Zool.* p. 134 (1851); *Kjærh. Danm. Fugle*, pl. 18 (1852); *Schl. Vog. Nederl.* pl. 148 (1854); *Sunder. Sr. Fogl.* pl. viii. fig. 1 (1856); *Kittl. Denkw.* ii. p. 198 (1858); *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 290 (1859); *Schrenck, Reis. Amurl.* i. p. 273 (1859); *Salvin, Ibis*, 1859, p. 314; *Tristr. t. c.* p. 424; *Poicys, Ibis*, 1860, p. 229; *Linderm. Vög. Griechenl.* p. 49 (1860); *Schl. Dier. Nederl., Vog.* pl. 17. fig. 10 (1861); *F. & P. Godman, Ibis*, 1861, p. 83; *Simpson, t. c.* p. 369; *Gray, List Br. B.* p. 106 (1863); *Radde, Reis. Sibir., Vög.* p. 154 (1863); *Wright, Ibis*, 1864, p. 60; *Sperling, t. c.* p. 280; *Gigl. Ibis*, 1865, p. 58; *More, t. c.* p. 124; *Filippi, Viagg. Pers.* p. 348 (1865); *Beitoni, Ucc. nidif. Lomb.* pl. 60 (1865-70); *Degl. & Gerbe, Orn. Eur.* i. p. 339 (1867); *Loche, Expl. Sci. Algér., Ois.* ii. p. 28 (1867); *Baird, Ibis*, 1867, p. 287; *Drake, t. c.* p. 427; *Smith, Ibis*, 1868, p. 443; *Borggr. Vogelf. Norddeutschl.* p. 70 (1869); *Saunders, Ibis*, 1869, p. 171; *Hume, t. c.* p. 355; *Keulem. Onze Vog.* i. pl. 28 (1869); *Doderl. Avif. Sicil.* p. 93 (1869); *Droste, Vogelw. Bork.* p. 106 (1869); *Fritsch, Vög. Eur.* tab. xvi. fig. 11 (1870); *Elwes & Buckley, Ibis*, 1870, p. 194; *Hutton, t. c.* p. 307; *Gray, Hand-l. B.* ii. p. 117, no. 7744 (1870); *Salvad. Faun. Ital., Ucc.* p. 129 (1871); *Dresser, B. Eur.* iv. p. 307, pl. 231 (1871); *Swinh. P. Z. S.* 1871, p. 389; *Hume, Ibis*, 1871, p. 38; *Saunders, t. c.* p. 216; *Gurney, t. c.* p. 291; *R. Gray, B. West Scotl.* p. 120 (1871); *Shelley, B. Egypt*, p. 139 (1872); *Harting, Handb. Br. B.* p. 24 (1872); *Gould, B. Cit. Br.* iii. pl. 15 (1873); *Servertz. Turkest. Jevotn.* p. 67 (1873); *Alst. & Harvie-Brown, Ibis*, 1873, p. 62; *Brooke, t. c.* p. 245; *Newton, ed. Yarell, Br. B.* i. p. 614 (1874); *Baird, Brewer & Ridgw. Hist. N. Amer. B.* ii. p. 136 (1874); *Danf. Ibis*, 1874, p. 306; *Dybowsaki, J. f. O.* 1874, p. 335; *Irby, B. Gibr.* p. 112 (1875); *Rowley, Orn. Miscel.* i. pl. 14. fig. 4 (1875); *Fallon, Ois. Belg.* p. 76 (1875); *Danf. & Harvie-Brown, Ibis*, 1875, p. 311; *Servertz. J. f. O.* 1875, p. 193; *Blanf. East. Persia*, ii. p. 239 (1876); *Tacz. J. f. O.* 1876, p. 196; *id. Bull. Soc. Zool. Fr.* i. p. 160 (1876); *Wharton, Ibis*, 1876, p. 26; *Seeb. & Harvie-Brown, t. c.* p. 119; *Dresser, t. c.* p. 181; *Prjev. in Rowley's Orn. Miscell.* ii. p. 314 (1877); *David & Oust. Ois. Chine*, p. 312 (1877); *Saunders, Bull. Soc. Zool. Fr.* ii.

- p. 90 (1877); *Tacz. t. c.* p. 144; *Danf. Ibis*, 1878, p. 20; *Seeb. t. c.* p. 31; *Bogd. B. Cauc.* p. 74 (1879); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 221 (1879); *Danf. Ibis*, 1880, p. 95; *Seeb. t. c.* p. 188; *Bidd. Ibis*, 1881, p. 89; *Gigl. t. c.* p. 200; *Swink. Ibis*, 1882, p. 116; *Seeb. t. c.* pp. 219, 279; *Dixon, t. c.* p. 571; *B. O. U. List Br. B.* p. 71 (1883); *Seeb. Ibis*, 1883, p. 12; *Severtz. t. c.* p. 80; *Irby, t. c.* p. 184; *Homeyer & Tancret, MT. orn. Ver. Wien*, 1883, p. 90; *Dybowski, Bull. Soc. Zool. France*, viii. p. 361 (1883); *Seeb. Hist. Br. B.* ii. p. 290 (1884); *Tristr. Faun. & Flor. Palest.* p. 78 (1884); *Rudde, Orn. Cauc.* p. 213 (1884); *Seeb. Ibis*, 1884, p. 41; *Saunders, t. c.* p. 377; *Booth, Rough Notes Br. B.* i. pt. ix. (1885); *Whitehead, Ibis*, 1885, p. 40; *Dixon, t. c.* p. 83; *Reid, t. c.* p. 246; *Gigl. Avif. Ital.* p. 67 (1886); *Salvad. Elench. Ucc.* p. 153 (1886); *Sharpe, Ibis*, 1886, p. 497; *Blackhouse, Ibis*, 1887, p. 72; *Tait, t. c.* p. 197; *Tacz. P. Z. S.* 1887, p. 603, 1888, p. 464; *Gigl. Avif. Ital. 1st Resoc.* p. 125 (1889); *St. John, Ibis*, 1889, p. 173; *Lilford, t. c.* p. 323; *Meade-Waldo, t. c.* p. 515; *Clarke, t. c.* p. 545.
- La Giroule, Month. Hist. Nat. Ois.* v. p. 47 (1778).
Alouette noire, Daubent. Pl. Enl. v. pl. 650, fig. 1.
Italian Lark, Lath. Gen. Syn. ii. pt. 2, p. 373 (1783).
Alauda italica, Gm. Syst. Nat. i. p. 793 (1788).
Alauda arvensis ruficeps, Bechst. Naturg. Deutschl. iv. p. 121 (1795).
Alauda corlipeta, Pall. Zoogr. Rosso-Asiat. i. p. 524 (1811).
Alauda vulgaris, Leach, Syst. Cat. Mamm. etc. p. 21 (1816).
Alauda agrestis, Brehm, Vög. Deutschl. p. 318 (1831).
Alauda segetum, Brehm, t. c. p. 319.
Alauda montana, Brehm, t. c. p. 319; *Cresson, Faun. Mérid.* p. 319 (1844); *Gray, Hand-l. B.* ii. p. 118, no. 7758 (1870).
Alauda cantarella, Bp. Iconogr. Faun. Ital., Ucc. p. 5 (1841); *id. Comp. List B. Eur. & N. Amer.* p. 37 (1838); *id. Conspect.* i. p. 245 (1850); *Gray, Hand-l. B.* ii. p. 118, no. 7752 (1870); *Swink. P. Z. S.* 1871, p. 389; *id. Ibis*, 1875, p. 122; *Tacz. Bull. Soc. Zool. Fr.* i. p. 100 (1870); *David & Oud. Ois. China*, p. 313 (1877); *Tristr. Faun. & Flor. Palest.* p. 79 (1884); *Blakist. & Pryer, B. Japan*, p. 168 (1882).
Alauda leiopus vel orientalis, Hodgs, Icon. ined. in Brit. Mus., Passeres, pl. 293 (no. 728); *id. in Gray's Zool. Misc.* p. 84 (1844); *Hume, Str. P.* i. p. 40 (1873), viii. p. 109 (1870); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 108 (1846).
Alauda dulcorax, Hodgs, Icon. ined. Passeres, pl. 294 (no. 727 *); *id. in Gray's Zool. Misc.* p. 84 (1844); *Hume, Str. P.* i. p. 40 (1873).

? *Alauda inconspicua*, *Severtz. Turkest. Jevotn.* p. 142 (1873) *.

Alauda triborhyncha (*nec Hodgs.*), *Hume & Henderson, Lahore to Yark.* p. 268, pl. 28 (1873); *Severtz. J. f. O.* 1875, p. 193; *id. Str. F.* 1875, p. 424; *Hume, Str. F.* 1879, p. 109.

Alauda guttata, *Brooks, J. A. S. Beng.* xli. pt. 2, p. 73 (1873); *id. Str. F.* 1873, p. 485; *Bidd. Ibis*, 1881, p. 90; *Scully, t. c.* p. 583; *Brooks, Ibis*, 1885, p. 389; *Scully, J. A. S. Beng.* lvi. p. 84 (1887).

Alauda gulgula (*nec Frankl.*), *Hersf. & Moore, Cat. B. Mus. E.I. Co.* ii. p. 467 (1856, pt.); *Anders. Zool. Exped. Yun-nan, Birds*, p. 605 (1878); *Marsh. Ibis*, 1884, p. 421.

Alauda sp., *Blakist. Amended List B. Japan*, p. 59 (1884).

? *Alauda nana*, *Gigl. Avif. Ital.* p. 68, note (1886).

Alauda blakistoni, *Stejn. Proc. Biol. Soc. Wash.* ii. p. 98 (1884); *id. Bull. U. S. Nat. Mus.* no. 29, p. 234 (1885).

Adult male in winter plumage. Brown, streaked with black centres to the feathers, the scapulars and lower mantle with grey edges to the plumes; the mantle contrasting somewhat with the rest of the back by reason of broad rufescent margins to the inner webs; a few feathers marked with terminal edges of ashy fulvous, especially on the rump and upper tail-coverts; wing-coverts and quills dark brown, margined with tawny buff, ashy on the edges, and inclining to whity brown on the greater coverts; the first long primary white along the outer web; the secondaries externally rufous, the inner primaries fringed with white at the ends, all but the innermost secondaries tipped with white; inner secondaries and centre tail-feathers blackish brown, edged with sandy or tawny buff; the penultimate tail-feather white along the outer web, the external feather white excepting for an oblique blackish mark extending up the inner web; head crested, like the back, the hind neck slightly paler and the mesial black streaks to the feathers shorter and broader; lores whitish; eyebrow isabelline, as also the feathers below the eye; ear-coverts rufous-brown with broad black streaks; cheeks and sides of face isabelline buff, with numerous tiny triangular spots of black; throat white, the adjoining sides of the neck also whitish, the throat dotted with minute triangular spots of blackish; the lower throat more distinctly lined with black streaks, which are developed into broader spot-like markings on the fore neck and chest, becoming more longitudinal on the sides of the breast and flanks; the fore neck, chest, and sides of body washed with tawny buff and a little rufous; remainder of under surface of body pure white, including the under tail-coverts; thighs pale sandy buff; under wing-coverts and axillaries dark ashy isabelline; quills dark ashy below, lighter ashy along the inner web: "bill dark greyish brown above and at the point of lower mandible, yellowish brown at the edge of upper mandible; the lower flesh-coloured tinged with blue; feet yellowish brown; iris hazel" (*J. Macgillivray*). Total length 7 inches, culmen 0.55, wing 4.5, tail 2.8, tarsus 1.

* Severtzoff afterwards identified this species with *A. gulgula*, which it is hardly likely to have been, though it was very possibly *A. liopus*. [*Cf. Str. F.* 1875, p. 424.] *Cf. also Dresser, Ibis*, 1876, p. 181.

The wing in a series of males measures from 4.35 to 4.55 inches.

In *summer plumage* the colouring is more uniform by reason of the shedding of the pale edges to the feathers. In many specimens killed in autumn there is a strong tinge of yellow on the underparts. Such specimens are probably young birds after their first moult, and the majority of these individuals have a scaly appearance on the upper surface from the breadth of the pale edges to the feathers.

Adult female. Similar to the male but smaller. Total length 6.5 inches, culmen 3.45, wing 4.1, tail 2.5, tarsus 0.95.

A dark race appears to be found in Portugal (*cf.* Tuit, 'Ibis,' 1887, p. 197). Dr. Vieira has kindly sent some specimens of this form to the Museum, and the male in breeding plumage is certainly a strongly marked bird, very dark above and coarsely spotted below. The mantle also contrasts somewhat vividly against the back, which gives it the appearance of a large *A. gulgula*. Total length 6.6 inches, culmen 0.55, wing 4.25, tail 2.55, tarsus 0.9. Another male has the wing 4.1 inches.

In the south of England the Larks which come during the autumn migration are often called 'Northern' Larks, and are certainly darker and browner as opposed to the resident Lark, which is a more rufous bird.

The males of this dark form have a wing from 4.45 to 4.6 inches, and the females have the wing from 3.9 to 4.25 inches.

The resident form in the south of England is decidedly a more rufous bird than the one which comes from the north during the winter season, though some specimens are difficult to distinguish from the darker race. The rufous race is decidedly a western bird in Europe, as will be seen by the list of localities of specimens in the Museum. It is somewhat interesting also to see that, according to the specimens sent by Dr. E. Vieira from Coimbra, the rufous Lark migrates to Portugal at least a month earlier than the brown Lark.

There is very little difference in size between the two races, the males of the rufous form measuring from 4.3 to 4.55 inches in the wing, and the females measuring from 3.9 to 4.2 inches.

Mr. Mansel-Pleydell has forwarded me recently (Feb. 27) three pairs of Sky-Larks from Dorsetshire. In each case the birds had paired and the male was of the rufous form and the female of the darker form.

The race known as *A. cantarella* is similar to *A. arvensis*, but is a decidedly greyer bird, more mealy in appearance everywhere, with a purer white belly and with much paler axillaries and under wing-coverts purer isabelline grey, not so dusky as in *A. arvensis*. Total length 6.7 inches, culmen 0.55, wing 4.5, tail 2.7, tarsus 0.9. The adult female is similar to the male in plumage, but smaller. Total length 6.1 inches, culmen 0.5, wing 3.9, tail 2.25, tarsus 0.8.

A. cantarella is, therefore, a mealy form of Sky-Lark which extends from the Mediterranean through Persia and Central Asia to Central Siberia and Northern China, and also extends to N.W. India. It must not, however, be supposed that it is constant throughout

its range as regards the characters which I have mentioned. Mr. Brooks considers it to be a larger bird than our Sky-Lark, and certainly the average length of the wing in the male is from 4·6 to 4·8 inches, and of the females from 3·9 to 4·25 inches. The males therefore do exceed the average of the dimensions of ordinary *A. arvensis*, but there is a great deal of variation in a series of *A. cantarella*, both in size and colour. Some specimens are so brown that it is difficult to separate them from *A. arvensis*. Again, the Krasnoyarsk and Chinese specimens have very thin bills, and so have some of the Turkestan birds; but the specimens with slender bills are found in other localities, and a gradation is found with *A. arvensis* on the one hand and *A. gulgula* on the other, by way of *A. liopus*. The thin-billed *A. cantarella* are slightly smaller (♂, wing 4·1–4·5 inches; ♀, wing 4·05–4·1), but, as with true *A. arvensis*, size does not go for much.

The *adult male* of the form known as *A. liopus* (= *A. guttata* of Brooks) is similar to *A. arvensis*, but distinguished by its much more rufous wing and rufous ear-coverts; the eyebrow is very broad and distinct posteriorly, so as to give the appearance of the head of a Wood-Lark.

Writing in 1871 in the 'Birds of Europe' I considered that the Sky-Lark of Cashmere was a small race of *A. arvensis*, and some specimens in the Museum still bear my determination of that date. Mr. Brooks afterwards named the Cashmere Lark *Alauda guttata*, but subsequently he came to the conclusion that it was the same as *A. liopus* of Hodgson. With this identification I thoroughly agree, after comparing the types of the two species together; though Nepalese specimens are large. Between *A. guttata* and *A. liopus* a certain difference is observable in a series; thus in Cashmere and Gilgit the coloration is much more dingy brown, never so rufous, and the abdomen is not so pure white. Gradually throughout the Himalayas the species becomes more and more rufous on the upper parts and whiter on the belly, and especially rufous on the wing. The most rufous of all the birds are the specimens from Japan.

The wings in the Cashmere and Sikhim specimens vary from 3·7 to 4·25 inches in the males, and from 3·35 to 3·75 inches in the females, so that there would appear to be not much difference in size between the sexes, as is also the case with *A. gulgula*.

In the Japanese specimens the wing in the male varies from 3·75 to 4·15 inches. The large form from E. Siberia and Kamtschatka (*A. blakistoni*) is in colour similar to *A. liopus*, but is larger and the black markings on the back and scapulars exhibit a tendency to coalesce. Wing 4·6–4·8 inches. The wing in the female varies from 4·3 to 4·5 inches.

Hab. The whole of Europe and Northern Asia, the Himalayas and N.W. India, and extending through Northern and Central China.

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|----------------------------|----------|--------------------------|
| <i>a.</i> Var. alb. sk. | England. | Montagu Coll. |
| <i>b.</i> Var. alb. sk. | England. | Dr. Day [P.]. |
| <i>c.</i> Var. alb. sk. | England. | W. J. Hughes, Esq. [P.]. |
| <i>d, e.</i> Var. mel. sk. | England. | Old Coll. |

a. Alauda arvensis. Dark form. "Northern Lark."

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| <i>f, g.</i> ♀ ad. sk. | Island of Tiree, March. | Colonel Irby [P.] |
| <i>A, i.</i> Ad. sk. | Whitehill, Midlothian (<i>Wardlaw-Ramsay</i>). | Tweeddale Coll. |
| <i>k-n.</i> ♀ ad. sk. | St. Bride's, Pembrokeshire, Dec. | Hon. W. Edwardes, [P.] |
| <i>o.</i> Ad. sk. | Wiltshire. | Montagu Coll. |
| <i>p.</i> ♂ ad.; <i>q, r.</i> ♀ ad. sk. | Avington, Hants, Nov., Feb. | Capt. G. E. Shelley [C.] |
| <i>s-v.</i> ♀ ad. sk. | Cookham, Berks, Feb. (<i>R. B. S.</i>). | R. B. Sharpe, Esq. [P.] |
| <i>w.</i> Ad. sk. | Surrey, Feb. (<i>F. D. G.</i>) | Salvin-Godman Coll. |
| <i>x.</i> ♂ ad. sk. | Hove, Sussex, Oct. 8 (<i>H. Swaysland</i>). | R. B. Sharpe, Esq. [P.] |
| <i>y, z.</i> ♂ ♀ ad. sk. | Norfolk, Nov., Jan. | Seebohm Coll. |
| <i>a.</i> ♀ ad. sk. | Bordeaux, France. | Gould Coll. |
| <i>b.</i> ♀ ad. sk. | Coimbra, Portugal, Nov. | Dr. L. Vieira [P.] |
| <i>c.</i> ♂ ad. sk. | Seville, Spain, Feb. | Seebohm Coll. |
| <i>d, e.</i> ♂ ad. sk. | Oudena, Tunis, Feb. (<i>O. S.</i>). | Salvin-Godman Coll. |
| <i>f.</i> ♂ ad. sk. | Malta, Feb. (<i>A. L. Adams</i>). | Gould Coll. |
| <i>g.</i> ♀ ad. sk. | Alexandria, March 3 (<i>G. E. S.</i>). | Shelley Coll. |
| <i>h, i.</i> Ad. sk. | Turkey. | Gould Coll. |
| <i>k.</i> ♂ ad. sk. | Asia Minor, March (<i>T. Robson</i>). | Gould Coll. |
| <i>l.</i> [♂] ad. sk. | Erzeroum. | Gould Coll. |
| <i>m.</i> [♀] ad. sk. | Erzeroum. | Zoological Society. |
| <i>n.</i> [♂] ad. sk. | Kislovodsk, Cis-Caucasia. | St. Petersburg Mus. [P.] |
| <i>o.</i> ♂ ad. sk. | Vishki, Lower Petchora, June (<i>H. S. & J. A. H. B.</i>). | Seebohm Coll. |
| <i>p.</i> ♀ ad. sk. | Norway, March 17. | Prof. R. Collett [P.] |
| <i>q.</i> Ad. st. | Heligoland. | L. Gatke, Esq. [P.] |
| <i>r.</i> ♀ ad. sk. | Hiddensee, Aug. | Seebohm Coll. |
| <i>s.</i> ♂ ad. sk. | Oldenburg, March 7. | Seebohm Coll. |
| <i>t.</i> [♀] ad. sk. | Dresden, April. | Dr. A. B. Meyer [P.] |

β. Alauda arvensis. Rufous form.

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| <i>a, b.</i> ♂ ♀ [group]. | Leicestershire. | Theodore Walker, Esq. [P.] |
| <i>c.</i> Ad. var. st. | Hereford, July. | R. P. Parker, Esq. [P.] |

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| <i>d.</i> ♂ ad.; <i>e', f'.</i> ♀ ad. sk. | Near Brighton, April, Oct., Nov. | R. B. Sharpe, Esq. [P.]. |
| <i>g'.</i> Ad. var. st. | Brighton. | R. B. Sharpe, Esq. [P.]. |
| <i>h'.</i> Juv. st. | Brighton. | H. Swainsland [C.]. |
| <i>i'.</i> ♂ imm. sk. | Romney Marsh, Sept. 11. | R. B. Sharpe, Esq. [P.]. |
| <i>k', l'.</i> ♂ ♀ ad. sk. | Leiden, Holland, Oct. | Hume Coll. |
| <i>m', n', o'.</i> ♂ ad.; <i>p'.</i> ♀ ad. sk. | Heligoland, Oct., Nov. (<i>L. Gütke</i>). | Seebohm Coll. |
| <i>q'.</i> Ad. sk. | Coimbra, Portugal, Oct. | Dr. L. Vieira [P.]. |
| <i>r'.</i> ♂ var. sk. | Seville, Spain, Feb. | Colonel Irby [P.]. |
| <i>s', t'.</i> ♂ ad. sk. | Valencia, Oct., April. | Howard Saunders, Esq. [P.]. |
| <i>u'.</i> Var. sk. | Gibraltar. | Colonel Irby [P.]. |
| <i>v'.</i> Ad. sk. | Tangiers. | Colonel Irby [P.]. |
| <i>w'.</i> Ad. sk. | "Tagora," N. Africa. | Gould Coll. |
| <i>x', y', z'.</i> Sterna; | England. | J. Ingall, Esq. [P.]. |
| <i>a''.</i> Skull. | | |
| <i>b''-f''.</i> Skeletons; <i>g''.</i> Skull. | England. | Purchased. |
| <i>h''.</i> Sternum; <i>i''.</i> Skull. | England. | J. Rae, Esq. [P.]. |
| <i>k'', l'', m'', n''.</i> Skulls. | Silesia. | Dr. A. Günther [C.]. |
| <i>o''.</i> Var. st. | New Zealand. | Sir W. Buller [P.]. |

γ. *Alanda cantarella*.

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| <i>a.</i> ♀ ad. sk. | Bordighera, N. Italy, March 20 (<i>A. B. Brooke</i>). | R. B. Sharpe, Esq. [P.]. |
| <i>b, c.</i> ♀ ad. sk. | Turkey, March 15 (<i>C. Pearce</i>). | R. B. Sharpe, Esq. [P.]. |
| <i>d.</i> ♂ ad. sk. | Smyrna, Dec. 20 (<i>Dr. Krüper</i>). | R. B. Sharpe, Esq. [P.]. |
| <i>e.</i> ♂ ad. sk. | Zebil Taurus, Asia Minor, Jan. 3 (<i>C. G. Danford</i>). | Seebohm Coll. |
| <i>f.</i> Var. sk. | Adalia, Asia Minor, Dec. 19 (<i>C. G. D.</i>). | Seebohm Coll. |
| <i>g, h, i, k.</i> ♂ ad.; ♀ ad. sk. | Palestine. | Canon Tristram [C.]. |
| <i>l, m.</i> ♀ ad. sk. | Beersheba, Palestine, Feb. | Canon Tristram [C.]. |
| <i>n-q.</i> ♀ ad. sk. | Fayoom, Egypt, Feb., March (<i>G. E. S.</i>). | Shelley Coll. |
| <i>r.</i> Ad. sk. | Persia. | Purchased. |
| <i>s.</i> ♀ ad. sk. | Near Shiraz, July. | Sir O. St. John [C.]. |
| <i>t.</i> ♂ ad. sk. | Bushire, Jan. 27. | A. J. V. Palmer, Esq. [P.]. |
| <i>u.</i> ♂ ad. sk. | Bushire, Feb. | Sir O. St. John [P.]. |
| <i>v-a'.</i> ♂ ad.; <i>b'.</i> ♀ ad. sk. | Krasnoyarsk, Siberia, April to June, Sept. (<i>Kibort</i>). | Seebohm Coll. |
| <i>c'.</i> ♀ ad. sk. | Valley of the Yen-e-say, 66½° N. lat., April 11 (<i>H. S.</i>). | Seebohm Coll. |
| <i>d', e'.</i> ♂ ♀ ad. sk. | Ural River, S.E. Russia. | Severtzoff Coll. |
| <i>f-i'.</i> ♂ ad.; <i>k'.</i> ♀ ad. sk. | Turkestan, July to November. | Severtzoff Coll. |

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| <i>l.</i> ♂ ad. sk. | Bagty, Turkestan, May 21 (<i>Dr. O. Finsch</i>). | Geogr. Soc. Bremen. |
| <i>m.</i> Ad. sk. | Kashgar (<i>J. Biddulph</i>). | Hume Coll. |
| <i>n.</i> ♂ ad. sk. | Aftao, N. Afghanistan, Dec. 12. | Dr. Aitchison [C.]. |
| <i>o.</i> ♂ ad. sk. | Candahar, Feb. 2. | Col. C. Swinhoe [P.]. |
| <i>p-l.</i> Ad. sk. | Pushut (<i>Griffith</i>). | India Museum [P.]. |
| <i>u, v.</i> ♂; <i>w, x.</i> ♀ ad. sk. | Pishin Valley, Dec. (<i>Sir O. St. John</i>). | Hume Coll. |
| <i>y, z.</i> ♂ ad. sk. | Gilgit, Nov. | Dr. J. Scully [P.]. |
| <i>a, b, c.</i> ♂; <i>d.</i> ♀ ad. sk. | Gilgit, Feb., March, Oct., Dec. (<i>J. Biddulph</i>). | Hume Coll. |
| <i>e, f.</i> ♂; <i>g.</i> ♀ ad. sk. | Gilgit, Dec., May. | Col. Biddulph [C.]. |
| <i>h.</i> Ad. sk. | Cashmere, May (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>i.</i> ♂ ad. sk. | Rawul Pindi, Jan. 23 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>k, l.</i> ♂ ♀ ad. sk. | Murdan, March, Dec. | Hume Coll. |
| <i>m.</i> Ad. sk. | Murree. | Col. Biddulph [C.]. |
| <i>n.</i> ♀ ad. sk. | Mooltan, Feb. 23 (<i>C. H. T. Marshall</i>). | Hume Coll. |
| <i>o, p.</i> Ad. sk. | Umritsur. | Hume Coll. |
| <i>q.</i> Ad. sk. | Naoshera, Punjab, March (<i>W. E. B.</i>). | Hume Coll. |
| <i>r, s.</i> Ad. sk. | Salt Range, Nov. (<i>Dr. Jerdon</i>). | Dr. Jerdon [C.]. |
| <i>t.</i> ♂ ad. sk. | Gurgaon District, Jan. (<i>W. N. Chill</i>). | Hume Coll. |
| <i>u.</i> ♀ ad. sk. | Gurgaon, Feb. (<i>W. N. C.</i>). | Seebohm Coll. |
| <i>v-x.</i> ♂; <i>a.</i> ♀ ad. sk. | Umballa, Feb., Nov. (<i>R. C. Bearan</i>). | Tweeddale Coll. |
| <i>b-c.</i> ♀ ad. sk. | Oudh, Nov. (<i>A. Anderson</i>). | Seebohm Coll. |
| <i>d.</i> ♂ ad. sk. | Pekin, Nov. (<i>R. Swinhoe</i>). | Seebohm Coll. |
| <i>e, f.</i> ♂ ad. sk. | Shanghai, March (<i>R. Swinhoe</i>). | (Type of <i>A. pekinensis</i>)
Seebohm Coll. |
| | | (Types of <i>A. intermedia</i> .) |

δ. Alauda liopus.

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| <i>a, b, c.</i> Ad. sk. | Cashmere. | Tweeddale Coll. |
| <i>d, e.</i> ♂ ad. sk. | Cashmere, May. | Hume Coll. |
| <i>f.</i> Juv. sk. | Cashmere (<i>Dr. Bellew</i>). | India Museum. |
| <i>g.</i> ♂ ad. sk. | Rembeera River, Kashmir, May 15 (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>h, i, k, l.</i> ♂; <i>m.</i> | Srinagar, Cashmere, May, | Hume Coll. |

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| <i>g'</i> . ♀ ad. sk. | Chumba Town, March (C. H. T. Marshall). | Hume Coll. |
| <i>h'</i> . [♂] ad. sk. | Bhawulpur. | Hume Coll. |
| <i>i'</i> , <i>k'</i> . ♂ ♀ ad. sk. | Dehra, Dec. (Dr. King). | Hume Coll. |
| <i>l'</i> , <i>m'</i> . Ad. sk. | Nepal. | Hodgson Coll.
(Types of <i>A. liopus</i> .) |
| <i>n'</i> , <i>o'</i> . ♂; <i>p'</i> . ♀ ad. sk. | Nepal Valley, Feb., March (J. Scully). | Hume Coll. |
| <i>q'</i> , <i>r'</i> . Ad. sk. | Native Sikhim, Dec. (L. Mandelli). | Seebohm Coll. |
| <i>s'</i> . Ad. sk. | Native Sikhim, Jan. (L. M.). | Hume Coll. |
| <i>t'-z'</i> . Ad. sk. | Sikhim, Jan., Feb., June, Oct., Dec. (L. Mandelli). | Hume Coll. |
| <i>a''</i> . Ad. sk. | Interior of Sikhim, Oct. (L. M.). | Seebohm Coll. |
| <i>b''-h''</i> . Ad. sk. | Thibet, May, Sept. (L. Mandelli). | Hume Coll. |
| <i>i''</i> , <i>k''</i> . Ad. sk. | Bootan (Pemberton). | India Museum. |
| <i>l''</i> . Ad. sk. | Momein, Yun-nan, May 30. | Dr. J. Anderson [C.]. |
| <i>m''</i> . ♂ ad. sk. | Canton, China (Tuckett). | Tweeddale Coll. |
| <i>n''</i> , <i>o''</i> . ♂; <i>p''</i> , <i>q''</i> . ♀ ad. sk. | Shanghai, Nov. (R. Swinhoe). | Seebohm Coll. |
| <i>r''</i> . Ad. sk. | Japan. | Purchased. |
| <i>s''</i> , <i>t''</i> . Ad. sk. | Japan. | Gould Coll. |
| <i>u''</i> . ♀ ad. sk. | Japan. | Prof. Milne [C.]. |
| <i>v''-x''</i> . ♂ ad. sk. | Hakodadi, Yezo, April, May, Oct. (H. Whitely). | Tweeddale Coll. |
| <i>y''</i> , <i>z''</i> . ♂ ad. sk. | Hakodadi, May, Oct. | H. Whitely [C.]. |
| <i>a³</i> . ♀ ad.; <i>b³</i> . ♂ juv. sk. | Hakodadi, May, June (J. Blakiston). | R. B. Sharpe, Esq. [P.]. |
| <i>c³</i> , <i>d³</i> . Ad. sk. | South Yezo, Sept. | Tweeddale Coll. |

e. Alauda blakistoni.

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|---------------------------------|------------------------------------|---------------|
| <i>a</i> . ♂ ad. sk. | Kamtschatka (Dybowsky). | Seebohm Coll. |
| <i>b</i> . ♂ ad. sk. | Island of Askold, Nov. (Dörries). | Seebohm Coll. |
| <i>c</i> , <i>d</i> . Ad. sk. | Kurile Is. (Snow). | Seebohm Coll. |
| <i>e</i> , <i>f</i> . ♂ ad. sk. | Eturup, Kurile Is. (W. Blakiston). | Seebohm Coll. |

ζ. Dark Iberian race.

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| <i>a</i> , <i>b</i> . ♂ ad. sk. | Coimbra, Portugal, May. | Dr. L. Vieira [P.]. |
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2. *Alauda gulgula.*

Alauda gulgula, Frankl. P. Z. S. 1831, p. 119; *Jerd. Madr. Journ.* xi. p. 30 (1840); *Blyth, J. A. S. Beng.* xiii. p. 962 (1844); *id. Cat. B. Mus. As. Soc.* p. 132 (1849, pt.); *Bp. Consp.* i. p. 245; *Jerd. B. Ind.* ii. p. 434 (1863); *Stoliczka, J. A. S. Beng.* xxxvii. p. 64 (1868); *King, t. c.* p. 216; *Beav. Ibis*, 1868, p. 181; *Brooks, Ibis*, 1869, p. 59; *Gray, Hand-l. B.* ii. p. 117, no. 7746 (1870); *Holdsw. P. Z. S.* 1872, p. 465; *Hume & Henders. Lahore to Yark.* p. 269, pl. 29 (1873); *Hume, Nest & Eggs Ind. B.* p. 486 (1873); *id. Str. F.* i. pp. 39, 420 (1873); *Adam, t. c.* p. 389; *Brooks, t. c.* p. 485; *Blyth & Wald. B. Burm.* p. 95 (1875); *Brooks, Ibis*, 1876, p. 499; *Butler, Str. F.* iv. pp. 2, 39 (1876); *Armst. t. c.* p. 337; *Godwin-Aust. J. A. S. Beng.* xlv. p. 83 (1876); *Butler, Str. F.* v. p. 185 (1877); *Ball, t. c.* p. 223; *Hume & Davison, Str. F.* vi. p. 409 (1878); *Dauids. & Wenden, Str. F.* vii. p. 86 (1878); *Legge, B.*

- Ceylon*, p. 630 (1879); *Hume, Str. F.* viii. p. 108 (1879); *Scully, t. c.* p. 338; *Vidal, Str. F.* ix. p. 73 (1880); *Wardlaw Ramsay, Ibis*, 1880, p. 67; *C. Swinh. Ibis*, 1882, p. 116; *Reid, Str. F.* x. p. 58 (1883); *Daivison, t. c.* p. 406; *Vidal, t. c.* p. 424; *Oates, Handb. B. Br. Burm.* i. p. 373 (1883); *Murray, Verlehr. Faun. Sind*, p. 197 (1884); *Swinh. & Barnes, Ibis*, 1885, p. 130; *Terry, Str. F.* x. p. 478 (1887); *Hume, Str. F.* xi. p. 289 (1888).
- Alauda triborhyncha*, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 293. fig. 2 (no. 739); *id. in Gray's Zool. Misc.* p. 84 (1844); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 109 (1840); *Horsf. & Moore, Cat. B. Mus. E. I. Co. ii.* p. 467 (1856, pt.); *Gray, Hand-l. B.* ii. p. 117, no. 7745 (1870).
- Alauda gracilis*, *Blyth, J. A. S. Beng.* xi. p. 201 (1842).
- Alauda gangetica*, *Blyth, J. A. S. Beng.* xii. p. 181 (1843).
- Alauda cristata* (pt.), *Gray, Gen. B.* ii. p. 380 (1844).
- Alauda malabarica* (*neo Sykes*), *Horsf. & Moore, Cat. B. Mus. E. I. Co. ii.* p. 467 (1856).
- Alauda coelivox*, *Swinh. Zool.* 1859, p. 6723; *id. Ibis*, 1860, pp. 52, 132, 1861, p. 46, 1863, p. 377; *id. P. Z. S.* 1863, pp. 89, 272; *id. Ibis*, 1870, p. 83; *Gray, Hand-l. B.* ii. p. 118, no. 7753 (1870); *Swinh. P. Z. S.* 1871, p. 380; *David & Oust. Ois. Chine*, p. 314 (1877).
- Alauda sala*, *Swinh. Ibis*, 1870, p. 355; *id. P. Z. S.* 1871, p. 389; *David & Oust. Ois. Chine*, p. 314 (1877).
- Alauda wattersi*, *Swinh. P. Z. S.* 1871, p. 389; *David & Oust. Ois. Chine*, p. 314 (1877); *Tweed. P. Z. S.* 1878, p. 710; *Wardlaw Ramsay, Ibis*, 1886, p. 160.
- Alauda australis*, *Brooks, Str. F.* 1873, p. 484; *Hume, Str. F.* 1879, p. 108; *Brooks, t. c.* p. 480; *Terry, Str. F.* x. p. 479 (1887).
- Alauda peguensis*, *Oates, Str. F.* 1875, p. 343.

Adult male. Similar to *A. arvensis*, or rather to the grey form of *A. arvensis* known as *A. cantarella*, but distinguished from it by its much smaller size, paler under wing-coverts, and almost entire absence of flank-stripes. "Bill, legs, feet, and claws fleshy yellow; the upper mandible brown; iris brown" (*C. T. Bingham*). Total length 5·8 inches, culmen 0·6, wing 3·65, tail 2·1, tarsus 1.

Adult female. Similar to the male. "Bill brownish, under mandible fleshy; legs and feet fleshy yellow, claws dusky; iris dark brown" (*C. T. Bingham*). Total length 5·7 inches, culmen 0·55, wing 3·5, tail 1·5, tarsus 0·95.

| | Males. | Females. |
|---|-------------|------------|
| <i>Alauda gulgula</i> : typical | 3·4 – 3·9 | 3·3 – 3·7. |
| <i>Alauda gulgula</i> : Eastern race of Burmese provinces | 3·45 – 3·75 | 3·2 – 3·4. |
| <i>Alauda gulgula</i> : very dark form—Cochin China
to Formosa and the Philippines (<i>A. wattersi</i>). | 3·3 – 3·6* | |
| <i>Alauda gulgula</i> : light race of China (<i>A. caelivox</i>)†. | 3·45 – 3·8 | 3·4. |
| <i>Alauda gulgula</i> : dark Formosan race (<i>A. sala</i>).. | 3·55 – 3·7 | |
| <i>Alauda gulgula</i> : dark race of Southern India (<i>A.</i>
<i>australis</i>) | 3·25 – 3·9 | 3·2 – 3·7. |

Hab. In its various light and dark forms the present species is found over the whole of the Indian Peninsula, Ceylon, the Burmese countries, and Southern China, with Formosa, Hainan, and the Philippine Islands (see *anted*, p. 566).

a. *Alauda gulgula*.

| | | |
|---|--|-----------------------|
| a, b. ♂ ♀ ad. sk. | Candahar, April, May (Sir O. St. John). | Hume Coll. |
| c, d. ♂ ad.; e. ♀ ad. sk. | Candahar, March 20–31. | Col. C. Swinhoe [P.]. |
| f. ♀ ad. sk. | Dubrai, April 21. | Col. C. Swinhoe [P.]. |
| g. ♂ ad. sk. | Byan Kheyl, Afghanistan, May 20 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| h. Ad. sk. | Murdan, March. | Hume Coll. |
| i. [♀] ad. sk. | Hyderabad, Oct. 6 (<i>E. A. Butler</i>). | Hume Coll. |
| k. ♂ ad. sk. | Sambhur Lake, Dec. 10 (<i>A. O. H.</i>). | Hume Coll. |
| l, m. ♂ ♀ ad. sk. | Delhi, Feb. 16–20 (<i>C. T. Bingham</i>). | Hume Coll. |
| n. ♂ ad.; o, p. ♀ ad. sk. | Sultanpur, Gurgaon dist., Feb. (<i>W. N. Chill</i>). | Hume Coll. |
| q, r. ♂ ♀ ad. sk. | Rohtuk Dist., Feb., Dec. (<i>A. O. H.</i>). | Hume Coll. |
| s, t. ♂ ad. sk. | Jhansie, Oct. | Hume Coll. |
| u. ♀ ad. sk. | Almorah, May (<i>W. E. Brooks</i>). | Hume Coll. |
| v–e'. ♂ ♀ ad. sk. | Etawah Dist., Oct., Nov., Dec., Jan., Feb., April (<i>W. E. Brooks</i>). | Hume Coll. |
| f'. ♀ ad. sk. | Cawnpore, April 29 (<i>W. E. Brooks</i>). | Hume Coll. |
| g', h'. ♀ ad. sk. | Allahabad, Oct. (<i>J. Cockburn</i>). | Hume Coll. |
| i'–s'. ♂ ad.; t'. ♀ ad. sk. | Futtehgurh distr., Feb.–May and Nov. (<i>A. Anderson</i>). | Seebohm Coll. |
| u', v'. ♂ ad. sk. | Futtehgurh dist., April (<i>A. Anderson</i>). | Hume Coll. |
| w'–a''. ♀ ad. sk. | Mogul Serai, March (<i>W. E. B.</i>). | Hume Coll. |
| b''. ♂ ad. sk. | Mogul Serai, Feb. (<i>W. E. B.</i>). | Seebohm Coll. |
| c''–g''. Ad. sk. | Nepal. | Hodgson Coll. |
| (Types of <i>Alauda triborhyncha</i> .) | | |
| h''. Ad. sk. | Nepal (<i>H. B. Hodgson</i>). | India Museum. |
| i''. Ad. sk. | Behar. | Hodgson Coll. |
| k''. ♀ ad. sk. | Chunar, Dec. 17 (<i>W. E. Brooks</i>). | Hume Coll. |

* Not a single bird has the sex determined.

† The bulk of the specimens in the Swinhoe collection are without indication of sex, but the maximum and minimum measurements of the wing are 3·25 and 3·7 inches.

| | | |
|--|--|----------------------------------|
| <i>l', m', n'. ♂ ad. ;</i> | Assensole, Sept. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>o', p'. ♀ ad. sk.</i> | | |
| <i>q', r'. ♂ ad. ; s',</i> | Dinapur, Feb. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>t'. ♀ ad. sk.</i> | | |
| <i>u', v'. ♂ ad. sk.</i> | Shoga, Feb. (<i>W. E. B.</i>). | Hume Coll. |
| <i>w', x', y'. ♂ ad. sk.</i> | Calcutta. | Hume Coll. |
| <i>z'. Ad. sk.</i> | Dacca (<i>Col. Tytler</i>). | India Museum. |
| <i>a', b', c'. ♂ ad. ;</i> | Manipur, March (<i>A. O. H.</i>). | Hume Coll. |
| <i>d'. ♀ ad. sk.</i> | | |
| <i>e'-o'. ♂ ad. ; p'-</i> | Lower Pegu, Oct., Dec.-May. | Oates Coll. |
| <i>q'. ♀ ad. et juv. sk.</i> | | (Types of <i>A. peguensis</i> .) |
| <i>r'. ♂ ad. sk.</i> | Elephant Point, Dec. 1 (<i>J. Armstrong</i>) | Hume Coll. |
| <i>u', v', w'. ♂ ad. ;</i> | Khykehto, Tenasserim, Jan. | Hume Coll. |
| <i>x', y'. ♀ ad. sk.</i> | (<i>W. Davison</i>). | |
| <i>z'. ♂ ad. ; a', b'. ♀ ad. sk.</i> | Beeling, Jan., Feb. (<i>W. D.</i>). | Hume Coll. |
| <i>c'-h'. ♂ ad. ; i'. ♀ ad. sk.</i> | Thatone, March, Dec. (<i>W. D.</i>). | Hume Coll. |
| <i>k'. ♀ ad. sk.</i> | Sittang River, Feb. (<i>W. D.</i>). | Hume Coll. |
| <i>β. Alauda australis.</i> | | |
| <i>a-d. Ad. sk.</i> | Raipur, June. | Hume Coll. |
| <i>e, f. Ad. sk.</i> | Madras. | Dr. T. C. Jerdon [P.]. |
| <i>g, h. ♂ ♀ ad. sk.</i> | Madras. | Hume Coll. |
| <i>i. Juv. sk.</i> | Madras (<i>T. C. Jerdon</i>). | Gould Coll. |
| <i>k, l. ♂ ♀ ad. sk.</i> | Bangalore, Sept. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>m-q. ♂ ad. et juv. ;</i> | Belgaum, April, June, Sept. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>r-u. ♀ ad. sk.</i> | | |
| <i>v. Ad. sk.</i> | Malabar. | Tweeddale Coll. |
| <i>w-z. ♂ ad. ; a'. ♀ ad. sk.</i> | Neddivuttum, Nilghiria, March (<i>W. Davison</i>). | Hume Coll. |
| <i>b', c'. ♂ ad. sk.</i> | Slope of Nilghiria, March. | Hume Coll. |
| <i>e', f'. ♂ ad. ; g', h'. ♀ ad. sk.</i> | Coonoor, Feb., April (<i>W. Davison</i>). | Hume Coll. |
| <i>i, k'. Ad. ; j'. Juv. sk.</i> | Coonoor, July (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>m'-r'. ♂ ad. et imm. ; s'-w'. ♀ ad. sk.</i> | Ootacamund, March to July (<i>W. D.</i>). | Hume Coll. |
| <i>x'-b'. ♂ ♀ ad. sk.</i> | Kotagherry, July, Aug, Sept. | Hume Coll. |

δ. Alauda wattersi.

| | | |
|-----------------------------|---|---|
| <i>a, b.</i> Ad. sk. | Formosa, Jan., March (<i>R. Swinhoe</i>). | Seebohm Coll. (Types of <i>A. wattersi</i> .) |
| <i>c-h.</i> Ad. sk. | Formosa, Jan., March (<i>R. Swinhoe</i>). | Seebohm Coll. |
| <i>i.</i> Ad. sk. | Cochin China. | Mons. E. Pierre [P.] |
| <i>k-n.</i> Ad. et imm. sk. | Manila (<i>Maitland Heriot</i>). | Tweeddale Coll. |
| <i>o.</i> ♂ ad. sk. | N. Bohol, Oct. (<i>A. H. Everett</i>). | Tweeddale Coll. |

e. Alauda sala.

| | | |
|--------------------------------------|---|--|
| <i>a.</i> Ad. sk. | North Formosa, March (<i>R. Swinhoe</i>). | Seebohm Coll. (Type of <i>A. sala</i> .) |
| <i>b-f.</i> Ad.; <i>g.</i> Pull. sk. | N. Formosa, March, May (<i>R. S.</i>). | Seebohm Coll. |
| <i>h, i, k.</i> Ad. sk. | N. Formosa, March. | Consul Swinhoe [C.] |
| <i>l, m.</i> ♂ ♀ ad. sk. | Hainan, March (<i>R. S.</i>). | Seebohm Coll. |

3. *Alauda prætermissa.*

Alauda prætermissa, *Blanf. Geol. & Zool. Abyss.* p. 388, pl. vi. (1870); *Gray, Hand-l. B.* ii. p. 118, no. 7750 (1870).

Galerita prætermissa, *Antin. & Salvad. Viagg. Bogos*, p. 474 (1873); *Salvad. Ann. Mus. Genov.* (2) 1, p. 168 (1884), vi. p. 266 (1888).

Alauda (*Galerita*) *arenicola*, var. *fusca*, *Blanf. Geol. & Zool. Abyss.* p. 387 (1870).

Adult male (type of species). Similar to *A. gulgula*, and having the same marked pattern of mantle, but differing in the colour of the tail, the pattern of the outer feather not being white but smoky buff, more or less fulvescent. Total length 6·2 inches, culmen 0·6, wing 3·8, tail 2·15, tarsus 0·9.

Adult female. Similar to the male, but a little smaller. Total length 5·2 inches, culmen 0·6, wing 3·7, tail 1·95, tarsus 0·9.

Hub. N.E. Africa.

| | | |
|--------------------------|---|---|
| <i>a, b.</i> ♂ ♀ ad. sk. | Senafé, Tigré, March. | W. T. Blanford, Esq. [C.] (Types of species.) |
| <i>c.</i> ♂ ad. sk. | Senafé, April (<i>W. Jesse</i>). | Tweeddale Coll. |
| <i>d.</i> Ad. sk. | Lake Ashanghi, April. | W. T. Blanford, Esq. [C.] (Type of <i>G. fusca</i> .) |
| <i>e.</i> ♀ ad. sk. | Angollala, Shoa, May (<i>Sir W. C. Harris</i>). | India Museum. |
| <i>f.</i> Ad. sk. | Ticor-Hamesh, Shoa, Aug. (<i>Antinori</i>). | Shelley Coll. |

11. CALANDRELLA *.

| | |
|---|------------------------------------|
| <i>Calandrella</i> , <i>Kaup, Natürl. Syst.</i> p. 39 (1829) | Type.
<i>C. brachydactyla</i> . |
| <i>Coraphidea</i> , <i>Blyth, J. A. S. Beng.</i> xiii. p. 960 (1844). | <i>C. brachydactyla</i> . |
| <i>Calandritis</i> , <i>Cab. Mus. Hein.</i> Th. i. p. 122 (1850) . . | <i>C. brachydactyla</i> . |

* The following species has not been identified by me:—

CALANDRELLA KOLLYI.

Alauda kollyi, *Temm. Pl. Col.* iii. pl. 305. fig. 1 (1824); *id. Man. d'Orn.* pt. iii. p. 203 (1835); *Schl. Rev. Crit.* p. 75 (1844).

Phileremos kollyi, *Borggr. Vogelf. Norddeutschl.* p. 70 (1869).

This supposed species is probably only a variety of the Common Short-toed Lark.

Calandrella brachydactyla, Kaup, *Nat. Syst.* p. 30 (1829); *Tristr.*
Ibis, 1850, pp. 34, 422; *Salvin*, *t. c.* p. 315; *Ronckley*, *t. c.* p. 330;
Tristr. P. Z. S. 1864, p. 434; *Filippi*, *Viagg. Pers.* p. 348 (1865);
Gigyl. Ill., 1865, p. 58; *Chamb. Ill.*, 1867, p. 103; *Loche*, *Extr.*

- Scully*, t. c. p. 579; *B. O. U. List Br. B.* p. 72 (1883); *Swinh. Ibis*, 1882, p. 115; *Bidd. t. c.* p. 285; *Seeb. Ibis*, 1883, p. 12; *Severtz. t. c.* p. 61; *Tristr. Faun. & Flor. Palest.* p. 80 (1884); *Radde, Orn. Cauc.* p. 285 (1884); *Murray, Vertebr. Faun. Sind*, p. 195 (1884); *Whitehead, Ibis*, 1885, p. 40; *Reid, t. c.* p. 246; *Gigl. Avif. Ital.* p. 63 (1886); *Salvad. Elench. Ucc. Ital.* p. 155 (1886); *Tait, Ibis*, 1887, p. 195; *Scully, J. A. S. Beng. lvi.* p. 84 (1887); *St. John, Ibis*, 1889, p. 172; *Lilford, t. c.* p. 324; *Clark, t. c.* p. 546; *Gigl. Avif. Ital. 1st Resoc.* p. 120 (1889); *Sharpe, Trans. Linn. Soc. Zool. v. pt. 3*, p. 81 (1889).
- Melanocorypha itala*, *Brehm, Vög. Deutschl.* p. 311 (1831); *id. Vogelf.* p. 121 (1855).
- Melanocorypha brachydactyla*, *Brehm, Vög. Deutschl.* p. 311 (1831); *Seebohm, Ibis*, 1882, p. 217.
- Melanocorypha arenaria*, *Bp. Comp. List B. Eur. & N. Amer.* p. 38 (1838).
- Phileremos brachydactyla*, *Keys. u. Blas. Wirb. Eur.* p. 152 (1840); *Mühle, Orn. Griechenl.* p. 37 (1844); *Linderm. Vög. Griechenl.* p. 49 (1860); *Borggr. Vogelf. Norddeutschl.* p. 70 (1869); *Droste, Vogelw. Borkum*, p. 70 (1869).
- Short-toed Lark, *Yarr. Br. B. i.* p. 420 (1843).
- Phileremos moreatica*, *Mühle, Orn. Griechenl.* p. 37 (1844).
- Alauda longipennis*, *Eversm. Bull. Mosc. xxi.* p. 219 (1848); *id. J. f. O.* 1853, p. 283; *Bogd. J. f. O.* 1877, p. 95.
- Calandritis brachydactyla*, *Cab. Mus. Hein. Th. i.* p. 122 (1850); *E. von Homeyer, J. f. O.* 1873, p. 193.
- ? *Calandritis kollyi*, *Cab. Mus. Hein. Th. i.* p. 123 (1850).
- Melanocorypha macroptera*, *A. E. Brehm, J. f. O.* 1854, p. 77; *C. L. Brehm, Vogelf.* p. 121 (1855).
- Melanocorypha obsoleta*, etc., *Brehm, Vogelf.* p. 121 (1855).
- Calandrella hermonensis*, *Tristr. P. Z. S.* 1864, p. 434; *id. Ibis*, 1866, p. 285; *id. Ibis*, 1882, p. 407; *id. Faun. & Flor. Palest.* p. 80 (1884).
- Alauda hermonensis*, *Gray, Hand-l. B. ii.* p. 117, no. 7749 (1870).
- Alauda macroptera*, *Gray, Hand-l. B. ii.* p. 119, no. 7777 (1870).
- Calandritis immaculata*, *E. von Homeyer, J. f. O.* 1873, p. 194.
- Calandritis macroptera*, *E. von Homeyer, t. c.* p. 195.

Adult male. General colour above sandy brown, everywhere mottled with blackish centres to the feathers; lesser wing-coverts uniform sandy buff; median coverts dark brown, rather broadly edged with sandy buff; greater coverts brown, edged with ashy, and with sandy buff at the ends; bastard-wing, primary-coverts, and quills dark brown, edged with sandy buff, rather more rufescent at the base of the secondaries; first long primary isabelline along the outer web; upper tail-coverts sandy isabelline as well as the adjacent portion of the rump, which has a uniform appearance, the longer coverts centred with blackish brown; centre tail-feathers sandy buff, dark brown along the middle; remainder of tail-feathers blackish with sandy-buff edges, the penultimate feathers broadly margined with isabelline, inclining to sandy buff towards the end of the outer web and round the tip; the outer feathers for the most part white, with an isabelline tinge towards the end of the outer web, the inner web with an oblique mark of blackish brown; head like the back, and distinctly streaked

with blackish brown; the hind neck a little more uniform and sandy brown like the sides of the neck; lores white, as also the feathers below the eyes; a distinct eyebrow of sandy isabelline; ear-coverts brown, washed with sandy buff; a small mark of blackish spots at the base, extending below the eye; cheeks sandy isabelline, with a malar line of dusky-brown dots; throat and abdomen white, with a slight wash of sandy isabelline, which is more distinct on the fore neck and chest, sides of body, and thighs; under tail-coverts isabelline white; on the fore neck and chest a few small blackish streaks, increasing in strength towards the sides of the fore neck, where they form a blackish patch; under wing-coverts sandy isabelline, the axillaries ashy isabelline; quills ashy brown below, isabelline along the inner web. "bill pale whitish brown, darkest on the culmen; legs pale yellowish brown; iris brown" (*G. E. Shelley*). Total length 5.5 inches, culmen 0.45, wing 3.45, tail 2.05, tarsus 0.75.

Adult female. Similar in colour to the male, but with scarcely any streaks on the fore neck, the lateral patch on which is also smaller. Total length 5.5 inches, culmen 0.45, wing 3.6, tail 2.15, tarsus 0.85.

Calandrella hermonensis of Tristram cannot be upheld as a species, inasmuch as it decidedly grades into *C. brachydactyla* as regards every character in which it is supposed to differ from that species. In the Palestine specimens the males measure from 3.55 to 3.9 inches. It should be noticed that this rufous form is by no means confined to Palestine, but is indeed found throughout the countries of the Mediterranean, and the same form extends to Abyssinia and Persia. The Museum possesses specimens with rufous heads from Spain, Italy, Algeria, Greece, and Egypt, which can in nowise be distinguished from so-called *C. hermonensis*, but individuals from Turkey are both brown and rufous on the head.

Hab. Southern Europe, extending to N.E. Africa and through Persia to Turkestan, and thence into N.W. India.

| | | |
|-------------------|--|----------------------------|
| a. Juv. sk. | [Europe.] | Gould Coll. |
| b. Ad. sk. | Gibraltar. | Colonel Irby [P.] |
| c. ♂ ad. sk. | Southern Spain, March 10
(Ruiz). | Seebohm Coll. |
| d. ♀ ad. sk. | Ain Beida, Algeria, May 1
(O. S.). | Salvin-Godman Coll. |
| e. ♀ ad. sk. | Mourzouk, March. | Gould Coll. |
| f, g. Ad. sk. | Italy. | Purchased. |
| h. Ad. sk. | Naples. | Prof. Bonelli [P.] |
| i. Ad. sk. | Liguria (<i>G. Doria</i>). | Seebohm Coll. |
| k. Ad. sk. | Austria. | Seebohm Coll. |
| l. ♂ ad. sk. | Mt. Parnassus, May 15 (<i>H. S.</i>). | Seebohm Coll. |
| m-p. ♂ ad. sk. | Turkey, April (<i>T. Robson</i>). | Tweeddale Coll. |
| q, r. ♂ ♀ ad. sk. | Turkey, April (<i>T. R.</i>) | Gould Coll. |
| s, t. ♂ ♀ ad. sk. | Pet-na-hore, Turkey, April (<i>C.</i>
<i>G. Danford</i>). | Seebohm Coll. |
| u, v ♂ ♀ ad. sk. | Smyrna, July (<i>Dr. Kruper</i>). | Tweeddale Coll. |
| w. ♂ ad. sk. | Smyrna, April (<i>Dr. Kruper</i>). | R. B. Sharpe, Esq.
[P.] |

| | | |
|--|--|--|
| <i>x</i> . Ad. sk. | Erzeroum, Aug. 3 (<i>Dickson & Ross</i>). | India Museum. |
| <i>y-c'</i> . ♂ ad.; <i>d'</i> .
♀ ad.; <i>e'</i> . Juv.
sk. | Palestine, May, June. | Canon Tristram [C.]. |
| <i>f-k'</i> . ♀ ad. sk.
<i>l'</i> . [♂] ad. sk. | Egypt, March, April (<i>G. E. S.</i>).
Gore, Egypt, March 7. | Shelley Coll.
J. H. Gurney, Esq.
[P.]. |
| <i>m', n'</i> . [♂ ♀] ad.
sk. | Zoulla, Abyssinia, Jan., Dec. | W. T. Blanford, Esq.
[P.]. |
| <i>o'</i> . ♂ ad. sk. | Near Bam, S.E. Persia, April
26. | W. T. Blanford, Esq.
[C.]. |
| <i>p'</i> . ♂ ad. sk. | Near Shiraz. | W. T. Blanford, Esq.
[C.]. |
| <i>q'</i> . ♂ ad. sk. | Fao, Persian Gulf, Sept. 25. | W. D. Cumming,
Esq. [P.]. |
| <i>r'</i> . ♂ ad. sk. | Lower Ural River, Aug. 11. | Severtzoff Coll. |
| <i>s'</i> . Ad. sk. | Samarcand. | Seeböhm Coll. |
| <i>t'</i> . ♂ ad. sk. | Sergiopol, Turkestan, May 7
(<i>Dr. O. Finsch</i>). | Geogr. Soc. Bremen. |
| <i>u'</i> . ♂ ad. sk. | Petrovalexandrovsk, Sept. 27. | Severtzoff Coll. |
| <i>v'</i> . ♂ ad. sk. | Aris River, Turkestan, Aug. 7. | Severtzoff Coll. |
| <i>w'-y'</i> . Ad. sk. | Gulran, N. Afghanistan, March. | Dr. Aitchison [C.]. |
| <i>z'</i> . ♂ ad. sk. | Tirphul, April. | Dr. Aitchison [C.]. |
| <i>a'', b'</i> . Ad. sk. | Afghanistan (<i>Griffith</i>). | India Museum. |
| <i>c'', d''</i> . Ad. sk. | Bolan Pass (<i>Griffith</i>). | India Museum. |
| <i>e'', f''</i> . ♂ ad.; <i>g''</i> ,
<i>h''</i> . ♀ ad. sk. | Kandahar, March. | Col. Swinhoe [P.]. |
| <i>i'', k''</i> . ♂ ♀ ad.
sk. | Kandahar, March (<i>Sir O. St. John</i>). | Hume Coll. |
| <i>l'', m''</i> . Ad. sk. | Sind, March (<i>Dr. H. Gould</i>). | India Museum. |
| <i>n'', o''</i> . ♂ ad. sk. | Deesa, Feb., Oct. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>p''</i> . Ad. sk. | Deesa. | Col. E. A. Butler
[P.]. |
| <i>q'', r''</i> . ♂ ad.; <i>s''</i> ,
<i>t''</i> . ♀ ad.; <i>u''</i> -
<i>y''</i> . Ad. sk. | Sambhur Lake, Dec., Jan.,
Feb. (<i>R. M. Adam</i>). | Hume Coll. |
| <i>z''</i> . ♀ ad. sk. | Palla, Maswar, Sept. 16 (<i>G. King</i>). | Hume Coll. |
| <i>a³</i> . ♀ ad. sk. | Jodhpur, Jan. 24 (<i>A. O. H.</i>). | Hume Coll. |
| <i>b³</i> . ♀ ad. sk. | Ajmir, Jan. 5 (<i>A. O. H.</i>). | Hume Coll. |
| <i>c³, d³</i> . ♂ ♀ ad.
sk. | Delhi district, Feb. 10. | Hume Coll. |
| <i>e³-g³</i> . ♂ ad.; <i>h³</i> -
<i>i³</i> . ♀ ad. sk. | Gurgaon district, Delhi, Dec.,
Jan., Feb. (<i>W. N. Chill</i>). | Hume Coll. |
| <i>m³, n³</i> . ♂ ♀ ad.
sk. | Umritzur, March (<i>C. H. T. Marshall</i>). | Hume Coll. |
| <i>o³-c⁴</i> . Ad. sk. | Sirza district, Punjab, Nov.,
Dec., Jan. | Hume Coll. |
| <i>d⁴</i> . ♂ ad. sk. | Ghurry Hursroo, Feb. (<i>Capt. Unwin</i>). | Hume Coll. |
| <i>e⁴</i> . ♂ ad. sk. | Gilgit, March (<i>J. Biddulph</i>). | Hume Coll. |
| <i>f⁴</i> . Ad. sk. | Masuri. | Hume Coll. |
| <i>g⁴-i⁴</i> . ♂ ♀ ad.;
<i>m⁴, n⁴</i> . Ad. sk. | Etawah, Oct.-Dec., Feb. (<i>A. O. H. & W. E. Brooks</i>). | Hume Coll. |
| <i>o⁴, p⁴</i> . Ad. sk. | N.W. Provinces. | Pinwill Coll. |
| <i>q⁴, r⁴</i> . Ad. sk. | Ahmedabad (<i>A. Anderson</i>). | Seeböhm Coll. |

s⁴. ♂ ad. sk.
t⁴, u⁴. ♀ ad. sk.

Oudh (A. Anderson).
Mhow, Jan.

Seebohm Coll.
Colonel Swinhoe
[P.].

Subsp. a. *Calandrella dukhunensis*.

Emberiza bagheira, Frankl. P. Z. S. 1831, p. 119 (nomen nudum).

Alauda dukhunensis, Sykes, P. Z. S. 1832, p. 93.

♀ *Emberiza olivacea*, Tickell, J. A. S. Beng. ii. p. 578 (1833).

Corypha baghera, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. 296.
figs. 1, 2 (nos. 434, 815); Blyth, J. A. S. Beng. xi. p. 200 (1842);
Hodgs. in Gray's Zool. Misc. p. 84 (1844).

Corophidea bagheira, Blyth, J. A. S. Beng. xiii. p. 961 (1844).

Calandrella brachyactyla (nec Leisl.), Blyth, J. A. S. Beng. xiv.
p. 556, note (1845); id. Cat. B. Mus. As. Soc. p. 132 (1849); Irbis,
Ibis, 1861, p. 231; Bear Ibis, 1868, p. 180; Hume, l. c. p. 239;
Fairb. Str. F. iv. p. 261 (1876); Ball, Str. F. vii. p. 223 (1878);
Scully, Str. F. viii. p. 337 (1879); Butler, Cat. B. S. Bomb. Pres.
p. 64 (1880); Davids. Str. F. x. p. 314 (1882); Swinh. & Barnes,
Ibis, 1885, p. 130.

Alauda brachyactyla (nec Leisl.), Gray, Cat. Mamm. etc. Nepal pres.
Hodgs. p. 109 (1846).

Coryphidea calandrella (nec Savi), Horaf. & Moore, Cat. B. Mus. E. I.
Co. ii. p. 473 (1856).

C. dukhunensis seems to be a large resident race of Short-toed Larks, almost confined to India. It is always much more rufous than *C. brachyactyla*, and in the autumn plumage this rufous colour is particularly emphasized on the breast and flanks. The throat and fore neck are always more fulvescent than in *C. brachyactyla*, and the upper plumage is always more coarsely mottled with black. "Bill dark horny brown above, pale fleshy below; feet and legs brownish flesh-colour, dusky at the joints; iris brown" (E. A. Butler). Total length 6 inches, culmen 0.55, wing 3.85, tail 2.25, tarsus 0.75.

Adult female. Similar to the male, but a little smaller. Total length 6.4 inches, culmen 0.55, wing 3.65, tail 2.2, tarsus 0.4.

The wing in the males varies from 3.7 to 4.05 inches, and in the females from 3.4 to 3.65.

Hab. Indian Peninsula, west to Sind and eastwards into the Burmese countries.

| | | |
|-----------------------------|---------------------------------|--------------------|
| a. ♂ ad. sk. | Karachi, Oct. (F. Day). | Hume Coll. |
| b, c, d. Ad. sk. | Etawah, Aug., Nov. (A. O. H.). | Hume Col. |
| e. Ad. sk. | Behar. | Hodgson Coll. |
| f l. Ad. sk. | Nepal. | Hodgson Coll. |
| m, n, o. Ad. sk. | Nepal (B. H. Hodgson). | India Museum. |
| p-r. ♂ ad.; s.
♀ ad. sk. | Nepal Valley, Oct. (J. Scully). | Hume Col. |
| t. Ad. sk. | Darjiling. | Tweeddale Coll. |
| u, v, w. Ad. sk. | Thibet, Aug (L. Mandelli). | Hume Coll. |
| x. ♂ ad. sk. | Mhow, March. | Col. Swinhoe [C.]. |
| y, z. ♂ ad. sk. | Khandeish, Oct. (J. Davidson). | Hume Coll. |
| α. Ad. sk. | Deccan (Sykes). | India Museum. |

(Type of *A. dukhunensis*.)

| | | |
|--|---|-----------------|
| <i>b'</i> . Ad. sk. | Deccan (<i>Burgess</i>). | Gould Coll. |
| <i>c'</i> , <i>d'</i> . ♂ ♀ ad. sk. | North of Ahmednuggur, Nov., Jan. (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>e'</i> , <i>f'</i> . ♂ ad.; <i>g'</i> . ♀ ad. sk. | Belgaum, Feb. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>h'</i> , <i>i'</i> . ♀ ad. sk. | Maunbhoom, March (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| <i>k'</i> , <i>l'</i> , <i>m'</i> . ♂ ad. sk. | Shillong, Assam, Sept. (<i>J. Cockburn</i>). | Hume Coll. |
| <i>n'</i> . ♂ ad. sk. | Dibrughur, April (<i>J. R. Cripps</i>). | Hume Coll. |
| <i>o'</i> . ♂ ad. sk. | Pegu, Sept. 25 (<i>E. W. Oates</i>). | Seeböhm Coll. |

2. *Calandrella thibetana*.

? *Calandrella brachydactyla* (*nec Leisl.*), *David & Oust. Ois. Chine*, p. 318 (1877); *Swinh. P. Z. S.* 1871, p. 390.

Calandrella tibetana, *Brooks, Str. F.* viii. p. 488 (1880).

Adult. Similar to *C. brachydactyla*, but greyer, like *C. acutirostris*, and having a long thin bill like that species. It has, however, the tail of *Alaudula piscoletta*, the outer tail-feather being almost entirely white, excepting an oblique blackish mark on the inner web; the white pattern is characterized by an absence of buff. Total length 6 inches, culmen 0·5, wing 3·65, tail 2·3, tarsus 0·75.

So few of the specimens have the sex marked that it is impossible to make an exact comparison of the length of wings with that of the allied species. In the series of *C. thibetana* in the Museum the wing varies from 3·95 to 3·3 inches.

Hab. Throughout the Himalayas from Cashmere to Sikhim and Thibet, becoming more plentiful in its eastern range.

| | | |
|-----------------------------|--|-------------------------------|
| <i>a-p.</i> Ad. et juv. sk. | Thibet, March, May–Sept. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>q.</i> Ad. sk. | Thibet, Sept. (<i>L. Mandelli</i>). | Hume Coll. (Type of species.) |
| <i>r, s, t.</i> Ad. sk. | Thibet (<i>L. Mandelli</i>). | Seeböhm Coll. |
| <i>u, v, w.</i> Ad. sk. | Sikhim (<i>L. Mandelli</i>). | Seeböhm Coll. |
| <i>x, y.</i> Ad. sk. | Sikhim, Oct. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>z.</i> Ad. sk. | Nepal. | Hodgson Coll. |
| <i>a'</i> . Ad. sk. | Nepal (<i>B. H. Hodgson</i>). | India Museum. |
| <i>b'</i> . ♂ ad. sk. | Cawnpore (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>c', d'</i> . ♂ ♀ ad. sk. | Rohtuk District, Feb. | Hume Coll. |
| <i>e'</i> . ♀ ad. sk. | Cashmere (<i>G. Henderson</i>). | Hume Coll. |
| <i>f'</i> . ♂ ad. sk. | Chashi Yassin, Aug. | Col. Biddulph [C.]. |
| <i>g'</i> . ♂ ad. sk. | Indus Valley, June. | Col. Biddulph [C.]. |

Subsp. *a.* *Calandrella acutirostris*.

? *Alaudula piscoletta*, *Stoliczka, J. A. S. Beng.* xxxvii. p. 64 (1868).

? *Calandrella raytal* (*nec Frankl.*), *Pelz. Ibis*, 1868, p. 319.

Calandrella acutirostris, *Hume, Lahore to Yark.* p. 265 (1873).

? *Calandrella brachydactyla*, *β. tenuirostris*, *Severtz. Turkest. Jevotn.* p. 67 (1873).

Calandrella brachydactyla, *Scully*, *Str. F.* iv. p. 172 (1870, *nec* *Leisl.*); *Wardlaw-Ramsay*, *Ibis*, 1880, p. 67.

Adult male. Similar to *C. brachydactyla*, but as a rule greyer, especially on the chest. It is distinguished from that species by the markings on the tail, the outer feather being buffy white along the outer web with frequently a sooty-brown marking near the end, the inner web being nearly entirely black, with a slight white pattern near the shaft: "bill dusky on culmen; yellowish horny at the sides and below; legs and feet brownish fleshy; claws dusky brown; iris brown" (*J. Scully*). Total length 5.5 inches, culmen 0.45, wing 3.75, tail 2.3, tarsus 0.8.

In this race the length of wing varies from 3.55 to 3.7 inches, and in the female it is 3.4 inches.

Hab. From Turkestan and Kashgar to Afghanistan and Khelat, extending to Cashmere and sparingly into the plains of India.

| | | |
|-----------------------|---|----------------------------------|
| a. Ad. sk. | Kashgar (<i>W. Bellew</i>). | India Museum. |
| b. ♂ ad. sk. | Balakchi, Yarkand, Aug. 5
(<i>Dr. G. Henderson</i>). | Hume Coll. (Type
of species.) |
| c, d, e. Ad. sk. | Balakchi, Aug. 25 (<i>Dr. J. Scully</i>). | Hume Coll. |
| f. ♂ ad. sk. | Karakurgan, Ferghana, June 1. | Severtzoff Coll. |
| g, h. Ad. sk. | Afghanistan (<i>Griffith</i>). | India Museum. |
| i. Ad. sk. | Byan Kheyl, Afghanistan, May
4 (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| k. ♀ ad. sk. | Quetta, July 13 (<i>O. T. Duke</i>). | Hume Coll. |
| l, m. ♂ ♀ ad. | Near Zohrab, Khelat, May 29
(<i>O. T. Duke</i>). | Hume Coll. |
| n. Ad. sk. | Boonji, N. Cashmere, May 27. | Col. Biddulph [C.]. |
| o. ♂ ad. sk. | Deosai Plain, July, 12,000 feet. | Col. Biddulph [C.]. |
| p. Ad. sk. | Gurgaon District, March (<i>A. O. H.</i>). | Hume Coll. |
| q. Ad. sk. | Etawah, Nov. 5 (<i>A. O. H.</i>). | Hume Coll. |
| r, s, t. ♂ ad.
sk. | Mogul Serai, Nov., Feb. (<i>W. E. Brooks</i>). | Hume Coll. |

12. ALAUDULA*.

Type.

Alaudula, *Horsf. & Moore Cat. B. Mus. E. I. C.* ii. p. 471.

Range. Countries of the Mediterranean, eastwards through Asia Minor and S.E. Russia to Persia and Central Asia, extending to Mongolia and Northern China, as well as to Northern India and the Burmese countries.

The races of Short-toed Larks, of which *A. pispoletta* is the type, are very closely allied, but do not seem to grade one into the other, the geographical ranges of the various races being apparently well marked.

The *pispoletta* group of the genus *Alaudula* divides itself into two sections, with a brown and sandy plumage, or a grey one. The grey members of the group are three in number, the best-known species being *A. raytal*, which has a very long bill. The allied form, *A. adamsi*, only differs from *A. raytal* in its shorter bill, and is a typical *Alaudula* as regards the latter, so that it would be absurd to consider *A. raytal* as anything more than a long-billed race of *A. adamsi*, or *vice versa*. The late Dr. Severtzoff was inclined to consider his *A. leucophœa* as identical with *A. adamsi*, but I find that it constitutes a larger race with much more white on the tail.

As to the other group, consisting of *A. pispoletta*, all the races appear to be well-defined, and each of them has its own habitat, with the exception of *A. pispoletta* itself, of which there is a paler form in Turkestan. All the other races are recognizable by their characters given below, which, although slight, appear to be constant.

1. *Alaudula pispoletta*.

Alauda pispoletta, *Pall. Zoogr. Rosso-Asiat.* i. p. 526 (1811); *Bp. Comp. List*, p. 37 (1838); *Degl. et Gerbe, Orn. Eur.* i. p. 341 (1867); *Gray, Hand-l. B.* ii. p. 119, no. 7778 (1870); *Bogd. B. Cauc.* p. 75 (1879); *Gütke, Ibis*, 1879, p. 379; *Seeb. Ibis*, 1880, p. 188; *Homeyer & Tancré, MT. orn. Ver. Wien*, 1883, p. 90; *Seeb. Hist. Br. B.* ii. p. 275 (1884).

Calandritis pispoletta, *Cab. Mus. Hein. Th.* i. p. 122, note (1850).

Alauda (*Philemeros*) *brachydactyla* (*nec Leisl.*), *Radde, Reis. Sibir., Vög.* p. 150 (1863); *cf. Bogd. J. f. O.* 1877, p. 93.

Calandrella pispoletta, *Filippi, Viagg. Persia*, p. 348 (1865); *Severtz. Turkest. Jevotn.* p. 67 (1873); *Dresser, B. Eur.* iv. p. 355, pl. 237 (1873); *id. Ibis*, 1876, p. 182; *Bogd. J. f. O.* 1877, p. 91; *Seeb. Ibis*, 1883, p. 12; *Radde, Orn. Cauc.* p. 206 (1884); *Gigl. Avif. Ital.* p. 59 (1886); *Salvad. Elench. Ucc. Ital.* p. 155 (1886); *Gigl. Avif. Ital. 1st Resoc.* p. 120 (1889).

Calandritis heinii, *E. von Homeyer, J. f. O.* 1873, p. 197.

Calandrella minor (*nec Cab.*), *Danf. Ibis*, 1878, p. 21.

Melanocorypha pispoletta, *Seeb. Ibis*, 1882, p. 217.

Adult male in summer plumage. Similar to *C. brachydactyla*, but altogether greyer and browner, and distinguished by the black stripes on the fore neck and chest and flanks, and by the shape of the wing, the secondaries being very much shorter than the primaries. Total length 5·7 inches, culmen 0·4, wing 3·8, tail 2·2, tarsus 0·8.

Adult female. Similar to the male. Total length 5·6 inches, culmen 0·45, wing 3·5, tail 2·25, tarsus 0·75.

Hab. From Asia Minor to Southern Russia, and eastwards to Central Asia.

| | | |
|-------------------|--|---------------------|
| a. ♂ ad. sk. | Ismid, Asia Minor, Nov. 15 (<i>C. G. Danford</i>). | Seebohm Coll. |
| b. ♀ ad. sk. | Anascha, Taurus, March 18 (<i>C. G. D.</i>). | Seebohm Coll. |
| c, d. ♂ ♀ ad. sk. | R. Volga. | Purchased. |
| e. ♀ ad. sk. | R. Volga. | Seebohm Coll. |
| f. ♂ ad. sk. | Alakul, Turkestan, May 9 (<i>Dr. O. Finsch</i>). | Geogr. Soc. Bremen. |
| g. ♂ ad. sk. | Lower Syr-Daria River, June 24. | Severtzoff Coll. |

β. Pale race.

| | | |
|-----------------|-------------------------------------|------------------|
| a. ♂ ad. sk. | Oxus River, Dec. 28. | Severtzoff Coll. |
| b, c. ♀ ad. sk. | Nukuss River, Aug. | Severtzoff Coll. |
| d. ♀ ad. sk. | Irgiz River, S.W. Siberia, Aug. 17. | Severtzoff Coll. |

Subsp. α. *Alaudula bætica*.

Calandrella reboudia (*nec Loche*), *Lilford, Ibis*, 1873, p. 98.

Calandrella bætica, *Dresser, B. Eur.* iv. p. 351, pl. 236. fig. 2 (1873); *Irby, B. Gibr.* p. 114 (1875); *Saunders, Bull. Soc. Zool. France*, ii. p. 91 (1877); *Chapm. Ibis*, 1884, p. 85; *Gigl. Avif. Ital.* p. 61 (1886).

Alauda pispoletta, var. *bætica*, *Seebohm, Hist. Br. B.* ii. p. 275, note (1884).

Adult male. Similar to *A. pispoletta*, and brown like that bird, but a little more ashy, and having the throat and breast as well as the flanks very broadly and coarsely marked with black streaks. Total length 5·5 inches, culmen 0·45, wing 3·45, tail 2·1, tarsus 0·8.

Adult female. Similar to the male. Total length 5·3 inches, culmen 0·4, wing 3·45, tail 1·9, tarsus 0·8.

Hab. Southern Spain.

| | | |
|--------------|---|-----------------|
| a. ♀ ad. sk. | Malaga, Spain, Feb. 8 (<i>H. Saunders</i>). | Tweeddale Coll. |
|--------------|---|-----------------|

Calandrella deserti, *Tristr. Ibis*, 1866, p. 286 (nomen nudum);
Wyatt, Ibis, 1870, p. 16.

Alauda reboudia, *Gray, Hand-l. B.* ii. p. 118, no. 7751 (1870).

Calandritis reboudia, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 696 (1871).

Calandrella minor, *Shelley, B. Egypt*, p. 142 (1872); *Dresser, B. Eur.* iv. p. 349, pl. 236. fig. 1 (1873); *Wright, Ibis*, 1874, p. 225;
Gigl. Ibis, 1881, p. 183; *Tristr. Faun. & Flor. Palest.* p. 81 (1884);
Gigl. Avif. Ital. p. 61 (1886); *Salvad. Elench. Ucc. Ital.* p. 155
 (1886); *Meade-Waldo, Ibis*, 1889, p. 515; *Tristr. Cat. Coll.*
 p. 245 (1889).

? *Calandrella pispoletta* (*nec Pall.*), *Blanf. East. Pers.* ii. p. 242
 (1876).

Alauda pispoletta, var. *minor*, *Seeb. Hist. Br. B.* ii. p. 275, note
 (1884).

Alauda brachydactyla (*nec Leisl.*), *Tristr. Ibis*, 1889, p. 23.

Adult. Similar to *A. pispoletta*, but is a rufous form of that species, especially rufescent on the upper tail-coverts; sides of body vinous buff, the streaks on the fore neck and chest rather broadly and distinctly streaked with blackish: "feet reddish; iris dark brown" (*Loche*). Total length 5.3 inches, culmen 0.4, wing 3.4, tail 1.95, tarsus 0.75.

This species so closely approaches *A. pispoletta* that sometimes it is almost impossible to distinguish examples. As a rule, however, the rufous colour of the species renders it easily recognizable.

Hab. N.E. Africa and the Canary Islands, east to Egypt, Palestine, and the countries bordering the Persian Gulf.

| | | |
|------------------------|-----------------------|---------------------------|
| <i>a.</i> ♂ ad. sk. | Algeria. | M. Verreaux. |
| <i>b.</i> ♀ ad. sk. | Beersheba, Palestine. | Canon Tristram [C.]. |
| <i>c, d.</i> ♀ ad. sk. | Fao, Persian Gulf. | W. D. Cumming, Esq. [P.]. |

Subsp. γ . *Alaudula cheeleensis*.

? *Alauda brachydactyla*, *Middend. Reis. Sibir., Zool. Vög.* p. 134
 (1851); *Swinh. Ibis*, 1861, pp. 255, 333.

Calandrella pispoletta, *Swinh. P. Z. S.* 1863, p. 271 (*nec Pall.*).

? *Alauda* (*Phileremos*) *brachydactyla*, *Radde, Reis. Sibir., Vög.* p. 150
 (1863).

Alaudula cheeleensis, *Swinh. P. Z. S.* 1871, p. 390; *Prjev. in Rowley's Orn. Misc.* ii. p. 315 (1877).

? *Calandrella brachydactyla*, *Tacz. J. f. O.* 1873, p. 86; *id. Bull. Soc. Zool. France*, i. p. 160 (1876), iii. p. 137 (1878).

Alauda cheeleensis, *David & Oust. Ois. Chine*, p. 317 (1877).

Alauda pispoletta, var. *cheeleensis*, *Seebohm, Hist. Br. B.* ii. p. 275
 (1884), note.

Calandrella cheeleensis, *Gigl. Arif. Ital.* p. 61 (1886).

Adult female. Similar to *A. pispoletta*, but much more rufous, especially on the upper tail-coverts, therein resembling *A. minor*. It is, however, larger than the latter species, and has so few streaks on the throat and fore neck, that in this respect it approaches *A. brachydactyla*; it can, however, be easily recognized by the white outer tail-feather, which is like that of *A. pispoletta*. "Bill

yellowish, brown at the tip; feet rufous; iris brown" (*A. David*).
Total length 5.5 inches, culmen 0.45, wing 3.4, tail 2.3, tarsus 0.75.

Hab. Eastern Siberia to Northern China.

- a, b.* ♂ ad. sk. Talienwan, China, June (*R. Swinhoe*). Seebohm Coll. (Types of species.)
c. ♀ ad. sk. Talienwan, June 26 (*R. Swinhoe*). Hume Coll.
d. ♀ ad.; *e.* Juv. sk. Chefoo, May (*R. Swinhoe*). Seebohm Coll.

Subsp. *δ.* *Alaudula persica*.

Calandrella pispoletta (*nec Pall.*), *Hume, Ibis*, 1870, p. 331; *id.* *Str. F.* 1874, p. 458; *Blanf. East. Persia*, ii. p. 242 (1876).

Alaudula pispoletta (*nec Pall.*), *Hume, Str. F.* 1877, p. 528, 1879, p. 100.

Adult. Similar to *A. cheeleensis*, but larger and much more distinctly streaked on the chest, and further distinguished by the black of the inner web of the outer tail-feather extending nearly to the end of the inner web in the form of a broad band. Total length 5.7 inches, culmen 0.5, wing 4, tail 2.35, tarsus 0.8.

Hab. From Persia to Afghanistan and N.W. India.

- a.* ♂ ad. sk. Near Niriz, east of Shiraz, Persia, May. W. T. Blanford, Esq. [C.]
b, c. Ad. sk. Afghanistan (*Griffith*). India Museum.
d-h. Ad. sk. Sirsa district, Punjab, Dec., Jan. Hume Coll.

Subsp. *e.* *Alaudula seebohmi*.

Alauda pispoletta (*nec Pall.*), *Scully, Str. F.* 1876, p. 173.

? *Alaudula pispoletta* (*nec Pall.*), *Bidd. Ibis*, 1881, p. 89.

Adult. Of a sandy-buff colour, resembling *A. minor*, *A. cheeleensis*, and *A. persica*, but much paler than any of them and with the outer tail-feather almost entirely white, excepting an oblique mark of dusky blackish towards the base of the inner web. Total length

2. *Alaudula raytal*.

Alauda raytal, Blyth, *J. A. S. Beng.* xiii. p. 962 (1844, *ex Buch. Hamilton MSS.*); *id. op. cit.* xv. p. 40 (1846); Gray, *Hand-l. B.*

ii. p. 119, no. 7779 (1870); Swinh. & Barnes, *Ibis*, 1885, p. 130.

Calandrella raytal, Blyth, *Cat. B. Mus. As. Soc.* p. 132 (1849).

Mirafra raytal, Gray, *Gen. B.* iii. App. p. 18 (1849).

Alaudula raytal, Horsf. & Moore, *Cat. B. Mus. E. I. Co.* ii. p. 471 (1856); Jerd. *B. Ind.* ii. p. 428 (1863); *Hodgs. Icon. ined. in Bibl. Soc. Zool., Passeres*, pl. 762. figs. 1, 2 (no. 911); Gray, *Cat. Mamm. etc. Nepal*, p. 58 (1863); Hume, *Nests & Eggs Ind. B.* p. 481 (1873); *Godw.-Aust. J. A. S. Beng.* xliii. p. 171 (1874); Blyth & Wald. *B. Burm.* p. 95 (1875); Hume, *Str. F.* iii. p. 159 (1875); *Anders. Rep. Zool. Exped. Yun-nan*, p. 606 (1878); Cripps, *Str. F.* vii. p. 295 (1878); Hume, *Str. F.* viii. p. 109; Scully, *t. c.* p. 338; Oates, *Handb. B. Burm.* i. p. 374 (1883); Hume, *Str. F.* xi. p. 288 (1888).

Adult male. General colour ashy grey, the feathers narrowly streaked with blackish shaft-lines, slightly less marked on the rump; wing-coverts ashy grey, with similar blackish shaft-streaks to the median and lesser series, all of them margined with ashy whitish; bastard-wing, primary-coverts, and quills dusky, edged and fringed at the tip with ashy whitish, the first primary white along the outer web; centre tail-feathers brown, darker in the middle, and pale ashy on the edges, the remainder of the feathers blackish, edged with ashy brown, the penultimate feather white along the outer web, the outer feather almost entirely white, with a dusky-brown edge to the inner web; head like the back, but more distinctly streaked with blackish mesial spots; lores and a broad eyebrow white, tinged posteriorly with isabelline; ear-coverts brown, streaked with hoary whitish; feathers around and below the eye white, as also the fore part of the cheeks; hinder cheeks brown, like the ear-coverts; throat and under surface of body white, the fore neck and chest streaked with central triangular spots of dusky brown; sides of upper breast ashy; the flanks isabelline and faintly streaked with dusky; thighs isabelline; under tail-coverts and under wing-coverts white; quills dusky below, ashy whitish along the inner web: "bill horn-colour with a greenish tinge, the tip dusky, the gape yellowish; legs fleshy yellow, claws horn-brown; iris brown; eyelids plumbeous; mouth flesh-colour" (*E. W. Oates*). Total length 4.4 inches, culmen 0.5, wing 3.2, tail 1.7, tarsus 0.75.

Adult female. Similar to the male in colour. Total length 4.6 inches, culmen 0.5, wing 3.1, tail 1.65, tarsus 0.7.

In the breeding-season the plumage becomes abraded, and the wearing away of the pale tips leaves the upper surface more spotted; otherwise there is scarcely any difference between winter and summer plumage. As a rule, but not invariably, the males seem to me to be rather more plentifully spotted on the chest than the females.

Hab. Sandbanks of the Ganges, Nerbudda, Brahmaputra, and Irawady Rivers and their affluents.

| | | |
|-------------------------------------|---|-------------------------|
| a. ♂ ad. sk. | Allahabad, Dec. 8. | Hume Coll. |
| b. Ad. sk. | Etawah, April 28 (<i>W. E. Brooks</i>). | Tweeddale Coll. |
| c, d, e. ♂ ad.;
f, g, h. Ad. sk. | Etawah, Feb., June, Sept. (<i>W. E. B. & A. O. H.</i>). | Hume Coll. |
| i-u. ♂; v-m'.
♀ ad. sk. | Cawnpore, Feb. (<i>W. E. B.</i>). | Hume Coll. |
| n'. Ad. sk. | Pilibheet (<i>W. E. Brooks</i>). | Hume Coll. |
| o', p'. ♂ ♀ ad. sk. | Futtehgurh, Sept. 27 (<i>A. Anderson</i>). | Hume Coll. |
| q'. ♀ ad. sk. | Futtehgurh, April (<i>A. Anderson</i>). | Seebohm Coll. |
| r', s'. Ad. sk. | Oudh. | Pinwill Coll. |
| t', u'. ♂ ♀ ad. sk. | Mogul Serai, March 10 (<i>W. E. B.</i>). | Hume Coll. |
| v-y'. Ad. sk. | Nepal. | Hodgson Coll. |
| z'. Ad. sk. | Nepal (<i>Hodgson</i>). | India Museum. |
| a'', b''. Ad. sk. | Behar. | Hodgson Coll. |
| c'', d''. ♂; e'', f''.
♀ ad. sk. | Patna, Feb. 1874 (<i>W. E. Brooks</i>). | Hume Coll. |
| g'-i''. ♂; k'.
♀ ad. sk. | Dinapore, Nov. 1875 (<i>W. E. Brooks</i>). | Hume Coll. |
| l', m''. ♂ ad. sk. | Faridpur, March 24, 1878 (<i>J. R. Cripps</i>). | Hume Coll. |
| n'', o''. ♂ ad. sk. | Boulav, Thayetmyo, March 21, 1873. | Oates Coll. |
| p''. ♀ ad. sk. | Yaylayman Mudbanks, Jan. 7, 1875. | Dr. J. Anderson
[C.] |

Subsp. *a.* ***Alaudula adamsi*.**

♀ *Alaudula raytal*, *Stoliczka, J. A. S. Beng.* xxxvii. p. 64 (1868).

Alauda adamsi, *Hume, Ibis*, 1871, p. 405.

Alaudula adamsi, *Hume, Nests and Eggs Ind. B.* p. 482 (1873); *id.* *Str. F.* i. p. 213 (1873); *Butler, Str. F.* v. p. 327, note (1877); *Brooks, i. c.* p. 488; *Hume, Str. F.* viii. p. 109 (1879); *Butler, Cat. B. Sind etc.* p. 50 (1879); *Murray, Vertebr. Zool. Sind*, p. 196 (1884).

Ammomanes adamsi, *Trist. Cat. Coll.* p. 244 (1889).

Adult male. Very similar to *A. raytal*, but with a very much smaller bill, like that of a typical *Calandrella*: "bill pale greyish or slaty grey, brownish on culmen and at tip, slightly yellowish white at base of lower mandible; legs and feet fleshy brown, or in some brownish, dusky on joints; iris pale brown" (*A. O. Hume*).

| | | |
|--------------------------------------|--|------------|
| <i>b', c'. ♂ ; d', e'. ♀ ad. sk.</i> | Sehwan, Dec., Jan. (<i>W. T. Blanford & A. O. H.</i>). | Hume Coll. |
| <i>f. ♀ ad. sk.</i> | Munchur Lake, Jan. 22 (<i>W. T. Blanford</i>). | India Mus. |
| <i>g', h'. ♀ ad. sk.</i> | Sind, Jan. (<i>Mr. F. Day</i>). | Hume Coll. |
| <i>i', k'. ♀ ad. sk.</i> | Guzerat, May (<i>W. T. Blanford</i>). | Hume Coll. |
| <i>l'. ♂ ; m'-o'. ♀ ad. sk.</i> | Karachi, April (<i>E. A. Butler</i>). | Hume Coll. |
| <i>p'. ♂ ad. sk.</i> | Delhi, Dec. 29 (<i>C. T. Bingham</i>). | Hume Coll. |
| <i>q'. ♂ ad. sk.</i> | R. Jumna, June 26 (<i>W. E. Brooks</i>). | Hume Coll. |

Subsp. β . *Alaudula leucophæa*.

Calandrella leucophæa, *Severtz. Turkest. Jevotn.* p. 142 (1873); *Gigl. Arif. Ital.* p. 61 (1886).

Calandrella pispoletta, *Cab. (nec Pall.)*, *Dresser, Ibis*, 1876, p. 182.

Alauda pispoletta, var. *leucophæa*, *Seeb. Hist. Br. B.* iv. p. 275, note (1884).

Adult male. Similar to *A. adamsi*, but larger, and distinguished by the much greater extent of white on the outer tail-feather, which has only an oblique dusky mark on the inner web. Total length 6 inches, culmen 0·5, wing 3·9, tail 2·35, tarsus 0·75.

Hab. Turkestan.

a, b. Ad. sk. Turkestan (*Dr. Severtzoff*). Seebohm Coll.

13. MIRAFRA *.

| | Type. |
|---|----------------------|
| <i>Mirafra</i> , <i>Horsf. Trans. Linn. Soc.</i> xiii. p. 159 (1820).... | <i>M. javanica</i> . |
| <i>Brachonyx</i> , <i>Sicains. Zool. Journ.</i> iii. p. 344 (1827, <i>nec Schönh.</i> 1826) | <i>M. apiata</i> . |
| <i>Corypha</i> , <i>Gray, List Gen. B.</i> 1840, p. 48..... | <i>M. apiata</i> . |
| <i>Megalophonus</i> , <i>Gray, List Gen. B.</i> 1841, p. 62 | <i>M. apiata</i> . |
| <i>Plocealauda</i> , <i>Hodgs. in Gray's Zool. Misc.</i> p. 84 (1844).. | <i>M. assamica</i> . |
| <i>Geocoraphus</i> , <i>Cab. Arch. f. Nat.</i> xiii. p. 328 (1847) | <i>M. javanica</i> . |

* The following species are unknown to me:—

1. MIRAFRA PLEBEIA.

Alauda (Megalophonus) plebeia, *Cab. J. f. O.* 1875, p. 237; *Reichen. J. f. O.* 1877, p. 29.

Alauda plebeia, *Bocage, Orn. Angola*, p. 560 (1881).

Hab. Angola.

As the description does not contain any information about the colour of the under wing-coverts, I have not been able to place this species in the 'Key.' Cabanis refers to it as an ally of *A. grayi*, but the latter is a true *Ammomanes*.

2. MIRAFRA ANGOLENSIS.

Mirafra angolensis, *Bocage, Journ. Lisb.* 1880, p. 60; *id. Orn. Angola*, p. 560 (1881).

Hab. Caconda, Benguela.

Probably near *M. fringillaris*, *Sundev.*

Range. Throughout Africa, excepting some portions of the west coast; Madagascar. The whole of the Indian Peninsula and Ceylon, locally in the Burmese countries; re-occurring in Java, Borneo, Flores, and the Philippines.



Head of *Mirafra javanica*, to show exposed nostrils.

Key to the Species.

- a. Light pattern of outer tail-feather tawny rufous.
- a'. Light pattern of outer tail-feather confined to the outer web, the inner web sometimes mottled with black (in young birds).
- a''. Quills almost entirely rufous, this colour extending over both webs, leaving the tips dusky blackish; centre tail-feathers rufous with irregular black cross markings; head rufous with a few black spots or bars *rufipile*, p. 597.
- b'. Quills dusky brown with rufous or ashy margins only, but with no rufous extending over the base of the primaries; centre tail-feathers blackish slightly mottled with rufous; head for the most part ashy grey with very little rufous *apiata*, p. 598.
- b'. Light pattern of outer feather much extended, occupying the whole feather excepting an oblique mark of dusky brown or blackish on the inner web.
- c''. Above brown, streaked with blackish; the hinder crown and mantle vinous streaked with blackish brown, upper surface of body

- f''*. Under wing-coverts and a broad inner lining to the quills deep chestnut-red.
- a'''*. With distinct rufous on the head and upper surface, the feathers being rufous or rufous-brown with black centres, the general appearance being rufescent, *not* grey or blackish.
- a'*. First small primary 0·6 inch in length and very broad. *javanica*, p. 602.
- b'*. First small primary not 0·5 inch in length.
- a'*. Eyebrow isabelline or tawny buff; shoulder of wing almost entirely rufous, the median and greater coverts showing scarcely any black bases to the feathers *secunda*, p. 603.
- b'*. Eyebrow broader and whiter and extended posteriorly; wings rufous externally, but the median and greater wing-coverts with distinct blackish bases *cheniana*, p. 603.
- b'''*. Grey or blackish brown above, the head like the back.
- c'*. Head grey like the back with blackish centres to the feathers: size larger; wing 2·9 inches *horsfieldi*, p. 604.
- d'*. Head dusky or blackish brown, with scarcely perceptible dusky centres to the feathers: size smaller; wing 2·7 inches.
- c'*. Flanks uniform *parva*, p. 604.
- d'*. Flanks streaked with blackish. *philippensis*, [p. 605.]
- g''*. Under wing-coverts paler, isabelline or light isabelline rufous, but not chestnut.
- c'''*. Rufous of primaries not continued across the base, but the quills blackish, edged with rufous on both webs.
- e'*. Smaller: more fulvescent; upper surface narrowly streaked with blackish centres to the feathers *cantillans**, [p. 605.]
- f'*. Larger: much darker brown in plumage; the centres to the feathers of the upper surface very broad and distinct. *fringillaris*, p. 606.
- d'''*. Rufous of primaries extending over both webs, with dusky brown ends; entire upper surface foxy rufous with pale margins; underneath white, with a few dusky spots on the chest *cordofanica*, [p. 606.]

* Here will probably come—

MIRAFRA SIMPLEX.

Geocoraphus (Mirafra) *simplex*, *Heugl. J. f. O.* 1868, p. 226 (*ex Cab. MSS. in Mus. Berol.*).

Mirafra simplex, *Gray, Hand-l. B.* ii. p. 121, no. 7806 (1870).

Geocoraphus simplex, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 687 (1871).

Hab. Coast of Arabia.

- α' . Light pattern of outer tail-feather confined to the outer web only.
 λ'' . Inner lining of quills entirely rufous, this rufous colour extending over both the inner and outer webs of the primaries near the base; the shaft dusky.
 e''' . Larger: culmen 0.75–0.8 inch; hinder crown rufous with black tips to the feathers, the rufous occiput contrasting with the back. . . *africana*, p. 607.
 f''' . Smaller: culmen not exceeding 0.65 inch.
 g^4 . Upper surface of body ashy grey in tone.
 e^4 . Colour of back dark grey; spots on chest very distinct; primary-coverts and quills blackish brown with rufous margins. *assamica*, p. 609.
 f^4 . Colour of back pale pearly grey; spots on chest very minute; primary-coverts almost entirely rufous; the quills rufous at base except for a line of black down the shaft *damarensis*, [p. 612].
 λ^4 . Upper surface of body rufescent or ferruginous in tone, not ashy.
 g^5 . Spots on breast large and distinct.
 e^5 . Smaller: primaries entirely rufous, with dusky ends; only a shaft-line of brown reaching to the base; primary-coverts rufous like the quills. *erythroptera*, [p. 612].
 λ^5 . Larger: primaries rufous, the brown in the middle of the feather distinctly reaching to the base of the quills; primary-coverts dark brown edged with rufous. } *affinis*, p. 614.
 λ^5 . Spots on the breast small and nearly obsolete. } *microptera*, p. 615. [p. 616].
 e^5 . Much larger: back sandy rufous *africanoides*,
 e^5 . Much smaller: back foxy red. *alopez*, p. 617.
 λ^6 . Inner lining of quills not rufous; the primaries leaden grey with isabelline on the inner web.
 g''' . Above tawny or sandy buff, broadly streaked with blackish centres to the

1. *Mirafra rufipilea*.

- L'Alouette à calotte rousse, *Leracill. Ois. d'Afr.* iv. pl. 198 (1805); *Sundev. Krit. om Levaill.* p. 46 (1857).
Alauda rufipilea, *Vieill. N. Dict. d'Hist. Nat.* i. p. 345 (1816); *Sharpe, Cat. Afr. B.* p. 72 (1871).
Megalophonus rufipileus, *Gray, Gen. B.* ii. p. 382 (1844); *Bp. Consp.* i. p. 243 (1850); *Layard, B. S. Afr.* p. 211 (1867); *Gray, Hand-l. B.* ii. p. 122, no. 7823 (1870); *Ayres, Ibis*, 1871, p. 268, 1873, p. 285, 1880, p. 265.
Brachonyx pyrrhonota, *Smith, Ill. Zool. S. Afr., Aves*, pl. cx. fig. 2 (1847, *nec Vieill.*).
Alauda fasciolata, *Sundev. Æfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 99.
Megalophonus fasciolatus, *Licht. Nomencl. Av. Berol.* p. 39 (1854); *Gray, Hand-l. B.* ii. p. 122, no. 7820 (1870).
Megalophonus apiatus (*nec V.*), *Ayres, Ibis*, 1869, p. 295; *Buckley, Ibis*, 1876, p. 133.
Mirafra rufipilea, *Sharpe, P. Z. S.* 1874, p. 641; *id. ed. Layard's B. S. Afr.* p. 517 (1884); *Bocage, Orn. Angola*, p. 376 (1881).

Adult male. Above entirely cinnamon-rufous, the feathers of the crown faintly tipped with whitish, these being much broader and more distinct on the back, scapulars, and wing-coverts, these light tips relieved by a subterminal line of black, most of the feathers being blackish at base and having one or two other concealed bars of blackish; hind neck and interscapular region brighter cinnamon, with central streaks of deeper crimson; wing-coverts cinnamon like the back, but the margins to the feathers broader and the black subterminal margins more pronounced; quills rufous for two thirds of their length, brown for the terminal third, the secondaries browner, the outer one mottled with the same externally, the innermost deep cinnamon, like the back, with the same distinct margins; tail brown, slightly tipped with rufous, the two outer feathers externally margined with creamy buff, the outermost more broadly, the two centre tail-feathers cinnamon, dark brown in the centre, from which radiate several imperfectly formed bars and mottlings of blackish; lores and a fairly distinct eyebrow buffy white; ear-coverts rufous, deeper on the hinder margin; cheeks and sides of neck buffy white, minutely speckled with dark brown; throat buffy white, unspotted; rest of under surface pale fawn-colour, rather obscured in some places by fulvous margins to the feathers, the fore neck and chest numerously marked with little round spots of black; under wing-coverts deep cinnamon, like the inner lining of the wing: "bill pale, with the tip dusky; tarsi and feet pale dusky; iris light tawny" (*Ayres*). Total length 5·8 inches, culmen 0·6, wing 3·35, tail 2·6, tarsus 1·05.

Young. Similar to the adult, but far deeper cinnamon, and everywhere barred with black wavy lines on the upper surface, the head included; tail with a broad centre of ashy brown, followed by another subterminal line along the apical portion of the feathers, this line evidently breaking up into the radiations from the shaft which

are seen in the tail-feathers of the adult; ear-coverts cinnamon, thickly spotted with black; under surface of body isabelline, the throat with a few concealed brown bars; the flanks and thighs deeper rufous, slightly mottled with brown barrings; the chest much deeper cinnamon, especially on the sides, the latter being slightly varied with blackish wavy lines, the centre of the chest sparsely spotted with blackish. Total length 5·8 inches, culmen 0·6, wing 3, tail 2·35, tarsus 1.

Hab. South-eastern Africa, from the Orange Free State to the Transvaal, and extending to the Zambesi.

| | | |
|-----------------|---|---------------|
| a. Ad. sk. | Bloemfontein (<i>H. Ecton</i>). | Shelley Coll. |
| b. ♂ ad. sk. | Orange Free State, June 5 (<i>T. E. Buckley</i>). | Shelley Coll. |
| c, d. ♂ ad. sk. | Rustenburg, E. Transvaal, Feb., June (<i>W. Lucas</i>). | Shelley Coll. |
| e. Ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |

2. *Mirafra apiata*.

L'Alouette bateleuse, *Levaill. Ois. d'Afr.* iv. pl. 194 (1805); *Sunder. Krit. om Levaill.* p. 46 (1857).

Alauda apiata, *Vieill. N. Dict. d'Hist. Nat.* i. p. 342 (1816); *Grill, Zool. Anteckn.* p. 40 (1858).

Alauda clamosa, *Steph. Gen. Zool.* xiv. p. 23 (1826).

Brachonyx apiata, *Smith, Ill. Zool. S. Afr.* pl. 110. fig. 1 (1847).

Megalophonus apatus, *Bp. Consp.* i. p. 244 (1850); *Layard, B. S. Afr.* p. 215 (1867); *Gray, Hand-l. B.* ii. p. 122, no. 7815 (1870); *Shelley, Ibis*, 1875, p. 81.

Mirafra apiata, *Sharpe, P. Z. S.* 1874, p. 638; *id. ed. Layard's B. S. Afr.* p. 515 (1884).

Adult male in summer plumage. Upper surface dark brown, the rufous obscure and the grey shade strongly marked only on the lower back and secondaries; head dark brown, with scarcely any grey shade or rufous markings; hind neck scarcely lighter than the head or back; wing-coverts ending in a rufous tint, with no perceptible grey margin; inner secondaries with a narrow blackish shaft-line, from which radiate about six narrow blackish cross lines; tail nearly uniform brown, with an obsolete shade of greyish on the centre tail-feathers, the external feathers being light fawn-colour on the outer web; eyebrow pale fawn, under surface of body bright fawn, the throat and chest speckled with black: "bill dark horn-colour, with the basal two thirds of the lower mandible and the edges of the upper one towards the gape buffish flesh-colour; legs white with a faint pink shade" (*G. E. Shelley*). Total length 5 inches, culmen 0·55, wing 3, tail 2·2, tarsus 1.

Adult in winter plumage. Upper surface grey, the rufous colour in broad and half-concealed bands; head entirely grey, mottled with blackish centres to the feathers, and slightly washed here and there with rufous; hind neck very clear grey, paler than head or back; wing-coverts with a broad whitish-grey margin; inner

secondaries dark brown in the centre and at entire base of the feathers, with only a few imperfect radiations of black near the tip; tail dark brown, tipped with white, the centre feathers clearly washed with grey as well as slightly tinged with rufous, and plainly marked with blackish radiations and spots near the shafts; eyebrow ashy fulvous; under surface ashy fulvous, concealing fawn-coloured bases to the feathers, the chest-spots much obscured.

Hab. Cape Colony.

| | | |
|----------------------|---|-----------------------|
| <i>a, b.</i> Ad. sk. | Cape Colony (<i>E. L. Layard</i>). | Salvin-Godman Coll. |
| <i>c.</i> Ad. sk. | Cape Colony. | Eyton Coll. |
| <i>d.</i> Ad. sk. | Cape Town. | C. J. Andersson [C.]. |
| <i>e.</i> ♂ imm. sk. | Stellendorf, Cape Colony,
Jan. 22 (<i>G. E. S.</i>). | Shelley Coll. |

3. *Mirafra buckleyi*.

Calandrella buckleyi, *Shelley, Ibis*, 1873, p. 142.

Megalophonus buckleyi, *Hartert, J. f. O.* 1886, p. 582.

Adult (type of species). General colour above brown, with ashy margins to the feathers; the mantle vinous, with dusky brown centres to the feathers; the head like the back, and the hinder crown and nape vinous, also streaked with dusky brown; wing-coverts and quills brown, edged with ashy, the greater coverts with pale vinous buff and having a faint subterminal shade of black; primaries narrowly edged with vinous buff; centre tail-feathers light rufous, with longitudinal blackish centres, rather broad; the remainder of the feathers dark brown, with ashy fulvous margins, the penultimate feather broadly edged with tawny buff, the outermost one entirely tawny buff excepting for an oblique mark of dusky brown on the inner web; upper tail-coverts sandy vinous, with dusky brown centres; lores and a distinct eyebrow sandy vinous; feathers below the eye whitish; ear-coverts sandy rufous, washed with dusky brown at the ends of the feathers; cheeks, throat, and underparts sandy buff, paler on the former, the fore neck and chest washed with vinous, and sparsely marked with triangular spots of brown: the flanks inclining to tawny buff; the abdomen, thighs, and under tail-coverts isabelline; on each side of the fore neck a patch of dusky brown, as in a *Calandrella*; under wing-coverts and axillaries tawny buff; quills dusky brown, rufescent along the inner web: "bill brownish flesh-colour, shading into dark brown towards the culmen and the end of the lower mandible; tarsi, feet, and claws flesh-colour; iris brown" (*G. E. Shelley*). Total length 5·3 inches, culmen 0·55, wing 2·85, tail 1·9, tarsus 0·85.

Hab. W. Africa: plains of Accra to the Niger district.

| | | |
|----------------------|---------------------------------------|----------------------------------|
| <i>a.</i> Ad. sk. | Accra, Feb. (<i>T. E. Buckley</i>). | Shelley Coll. (Type of species.) |
| <i>b, c.</i> Ad. sk. | Accra, Feb. (<i>G. E. S.</i>). | Shelley Coll. |
| <i>d.</i> Ad. sk. | Accra (<i>Ussher</i>). | Shelley Coll. |
| <i>e.</i> Ad. sk. | Accra (<i>J. Smith</i>). | Sharpe Coll. |

4. *Mirafrā fischeri*.

- Calandrella buckleyi* (*nec Shelley*), *Reichen. J. f. O.* 1877, p. 29; *Bocage, Orn. Angola*, p. 500 (1881).
Megalophonus buckleyi (*nec Shelley*), *Cab. J. f. O.* 1878, p. 228.
Mirafrā apiata (*nec V.*), *Sharpe & Bouvier, Bull. Soc. Zool. France*, iii. p. 77 (1878); *Bocage, Orn. Angola*, p. 357 (1881); *Shelley, Ibis*, 1882, p. 350; *Sharpe, ed. Layard's B. S. Afr.* p. 851 (1884); *Hartl. Zool. Jahrb.* ii. p. 327 (1886); *Shelley, P. Z. S.* 1888, p. 28.
Megalophonus fischeri, *Reichen. J. f. O.* 1878, p. 266; *Böhm, J. f. O.* 1888, p. 202; *Schalow, t. c.* p. 364; *Fischer, J. f. O.* 1885, p. 137; *Reichen. J. f. O.* 1887, pp. 74, 309.

Adult male. Very similar to *M. buckleyi*, but larger and with more rufous on the lining of the quills, and no appearance of vinous on the head and mantle. The chief difference, however, between this species and *M. buckleyi* lies in the cross-barring of the feathers of the back and scapulars in *M. fischeri*, and the very distinct subterminal black line on the inner secondaries before the pale edging to these quills; outer tail-feather tawny, with an oblique blackish mark on the inner web: "upper mandible dusky brown, paler on the lower mandible and the cutting-edges of the upper; feet pale reddish; iris umber-brown" (*Emin Pasha*). Total length 5·7 inches, culmen 0·65, wing 3·15, tail 2·1, tarsus 1.

Adult female. Similar to the male in colour. Total length 6 inches, culmen 0·55, wing 3·05, tail 2·1, tarsus 1.

Hab. From Swazi-Land to the Zambesi and Benguela, and thence to the Congo Region and throughout Eastern Africa.

| | | |
|----------------------------|--|--------------------|
| a. Ad. sk. | Swazi-Land, July (<i>T. E. Buckley</i>). | Shelley Coll. |
| b. Ad. sk. | Zambesi Region. | Dr. Bradshaw [C.]. |
| c, d. ♂ ♀ ad.; e. Juv. sk. | Landana, Congo (<i>L. Petit</i>). | Sharpe Coll. |
| f. ♀ ad. sk. | Landana (<i>L. Petit</i>). | Shelley Coll. |
| g, h. ♂ ♀ ad. sk. | Condé, Congo (<i>L. Petit</i>). | Shelley Coll. |
| i. ♂ ad. sk. | Kassongo, Upper Congo, June. | F. Bohndorff [C.]. |
| k. ♀ ad. sk. | Wadelai, Aug. 11. | Emin Pasha [P.]. |

brown, externally rufous, giving them a conspicuous rufous aspect; the secondaries dusky brown, externally rufous, with a zig-zag subterminal line of blackish and some further lines of black on the centre of the feathers; centre tail-feather rufous, with some dusky shading near the shaft; the remainder of the feathers blackish brown, rather rufescent towards the ends, the penultimate feather blackish on the inner web, tawny on the outer one, the outermost feather tawny buff, with a dusky inner margin of blackish; head like the back, with blackish median streaks to the feathers; eyebrow and sides of face pale tawny rufous; the ear-coverts spotted with dusky brown, and inclining to chestnut on the hinder margin; throat and under surface of body tawny buff, with spots of vinous chestnut on the lower throat; the fore neck more distinctly spotted with chestnut, with black central spots on the feathers. Total length 5·6 inches, culmen 0·65, wing 3·15, tail 2·1, tarsus 0·95.

Hab. East Africa.

a. Ad. sk.

Ugogo (*Sir J. Kirk*).

Shelley Coll.
(Type of *M. torrida*.)

6. *Mirafra hova*.

Hotahota, *Flacourt, Hist. Madag.* p. 166 (1661).

Mirafra hova, *Hartl. J. f. O.* 1860, p. 106; *id. Beitr. Faun. Madag.* 1861, p. 57; *Roch & E. Newt. Ibis*, 1862, p. 275; *E. Newt. Ibis*, 1863, p. 350; *Scl. P. Z. S.* 1863, p. 164; *A. Newt. P. Z. S.* 1865, p. 836; *Grand. Rev. Zool.* 1867, p. 389; *Gray, Hand-l. B.* ii. p. 121, no. 7803 (1870).

Alauda hova, *Schl. P. Z. S.* 1866, p. 424; *id. & Poll. Faun. Madag., Ois.* p. 107 (1868); *Hartl. Vög. Madag.* p. 221 (1877); *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* p. 456, pl. 183. fig. 3, pls. 184, 187 a. fig. 5 (1882).

Adult male. Sandy brown, with black centres and pale edges to the feathers; wing-coverts and quills dark brown, with sandy-buff edges, the primaries edged with tawny rufous, the outer ones and the primary-coverts with ashy fulvous; tail-feathers blackish, the penultimate one with the outer web white, the outer feather smoky fulvous or sandy buff on the inner web, whiter on the outer, the inner web with an oblique mark of blackish brown from the base; head like the back; lores and a broad eyebrow whitish, as well as the feathers below the eye; cheeks sandy buff, spotted with brown on the hinder part; ear-coverts sandy white, brown along the upper margin and largely spotted with black on the hinder margin; throat white; remainder of under surface creamy buff or isabelline, washed with tawny buff on the flanks; the lower throat spotted with dusky, and the fore neck and breast very thickly spotted with triangular black markings; under wing-coverts and axillaries tawny rufous or pale chestnut; the quills dusky below, rufous along the inner web. Total length 5·5 inches, culmen 0·55, wing 3·2, tail 1·8, tarsus 0·85.

distance towards the end of the shaft; feathers above and below the eye, forming a distinct eyebrow, creamy buff; ear-coverts rufous, slightly mottled with dark brown, as also are the cheeks and sides of the neck, which are white; throat white, unspotted; rest of under surface creamy buff, strongly inclining to rufous on the chest, which is mottled with triangular spots of dark brown, inclining to streaks on the side of the breast; flanks and thighs washed with rufous; under tail-coverts buffy white; under wing-coverts deep rufous, the inner lining of wing ashy brown, rufous along the inner web: "bill pale, with a decided yellow tinge and yellow at the gape, but dusky brown on the upper mandible, except on the edges; tarsi and feet pale pinkish; iris light reddish umber" (*T. Ayres*). Total length 5·3 inches, culmen 0·5, wing 2·85, tail 2·9, tarsus 0·9.

Hab. South Africa, from British Caffraria to the Transvaal.

| | | |
|--------------------------------------|---|---------------------|
| <i>a, b.</i> Ad.; <i>c.</i> Juv. sk. | Latakoo. | Sir A. Smith [C.] |
| | | (Types of species.) |
| <i>d.</i> ♂ ad. sk. | Whittlesea Flats (<i>T.</i>
<i>C. Atmore</i>). | Sharpe Coll. |

10. *Mirafra horsfieldi*.

Mirafra horsfieldi, *Gould*, *P. Z. S.* 1847, p. 1; *id.* *B. Austr.* fol. iii. pl. 77 (1848); *Bp. Consp.* i. p. 243 (1850); *Reichenb. Vog. Neu-holl.* p. 88 (1850); *Gould, Handb. B. Austr.* i. p. 404 (1865); *Gray, Hand-l. B.* ii. p. 121, no. 7798 (1870); *Ramsay, P. Z. S.* 1875, p. 590; *id. Proc. Linn. Soc. N. S. W.* (2) ii. p. 168 (1887); *id. Tab. List Austr. B.* p. 10 (1888).

Adult male. Similar to *M. javanica*, but grey instead of rufous, the whole aspect of the bird being blacker: "bill fleshy brown at the base and dark brown at the tip; feet fleshy brown" (*J. Gould*). Total length 5·3 inches, culmen 0·55, wing 2·9, tail 1·85, tarsus 0·85.

The sexes, according to Mr. Gould, are alike in plumage.

Hab. N.W. Australia, Southern Queensland south to New South Wales.

There is no rufous on the head and back, and very little grey, the general aspect of the bird being blackish. Total length 5·1 inches, culmen 0·55, wing 2·7, tail 1·8, tarsus 0·8.

Hab. Flores.

| | | |
|-------------------|----------------------------|--------------------|
| <i>a.</i> Ad. sk. | Flores. | Wallace Coll. |
| <i>b.</i> Ad. sk. | Flores (<i>Wallace</i>). | Tweeddale Coll. |
| <i>c.</i> Ad. sk. | Flores (<i>Wallace</i>). | Seeborn Coll. |
| | | (Type of species.) |

Subsp. β . ***Mirafra philippinensis*.**

Mirafra philippinensis, *Wardlaw Ramsay, Ibis*, 1886, p. 160.

Adult (type of species). Similar to *M. parva*, and only differing from it in its blacker coloration and the blackish streaks on the flanks. Total length 5 inches, culmen 0·55, wing 2·7, tail 1·7, tarsus 0·8.

Hab. Island of Luzon, Philippines.

| | | |
|---|------------------------------------|---------------------|
| <i>a, b.</i> Ad. et juv. sk. | Manila (<i>Maitland-Heriot</i>). | Tweeddale Coll. |
| | | (Types of species.) |
| <i>c, d, e.</i> Ad.; <i>f.</i> Juv. sk. | Manila (<i>M.-H.</i>). | Tweeddale Coll. |

11. ***Mirafra cantillans*.**

Alauda cheendoola (*nec Frankl.*), *Jerd. Madr. Journ.* xi. p. 30 (1840).

Mirafra cantillans, *Blyth, J. A. S. Beng.* xii. p. 181 (*ex Jerd. MSS.*; *descr. nullâ*), xiii. p. 960; *Blyth, Cat. B. Mus. As. Soc.* p. 134 (1849); *Bp. Consp.* i. p. 243 (1850); *Blyth, J. A. S. Beng.* xxiv. p. 269 (1855); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 477 (1856); *Jerd. B. Ind.* ii. p. 420 (1863); *Gray, Hand-l. B.* ii. p. 121, no. 7799 (1870); *Adam, Str. F.* 1873, p. 388; *id. Nests & Eggs Ind. B.* p. 476 (1873); *Ball, Str. F.* 1874, p. 422, 1875, p. 208; *Butler, t. c.* p. 499; *Ball, Str. F.* 1877, p. 223; *Hume, Str. F.* 1879, p. 108; *Butler, Cat. B. Sind &c.* p. 49 (1879); *Swinh. & Barnes, Ibis*, 1885, p. 129; *Reid, Cat. Lucknow Mus.* p. 138 (1886).

Adult male. Similar to *M. javanica*, but distinguished by its pale wing-lining, which, instead of being chestnut, is only isabelline rufous. Total length 5·8 inches, culmen 0·5, wing 3·2, tail 2·2, tarsus 0·9.

Adult female. Similar to the male in colour but smaller. Total length 5·2 inches, culmen 0·5, wing 3·15, tail 1·95, tarsus 0·85.

Hab. Central and Southern India, north from Madras, extending to Cashmere.

| | | |
|----------------------|---|---------------|
| <i>a, b.</i> Ad. sk. | Deesa, Jan., July (<i>E. A. Butler</i>). | Hume Coll. |
| <i>c.</i> ♀ ad. sk. | Rohtuk district, Dec. 24 (<i>A. O. H.</i>). | Hume Coll. |
| <i>d.</i> ♂ ad. sk. | Sambhur, June (<i>R. M. Adam</i>). | Seeborn Coll. |

| | | |
|------------------------------------|---|--|
| <i>e-k.</i> ♂; <i>l.</i> ♀ ad. sk. | Hansi, Hissar, Dec. (<i>A. O. H.</i>). | Hume Coll. |
| <i>m.</i> ♂ ad. sk. | Naoshera, Caeshmere, May 6 (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>n, o, p.</i> Ad. sk. | Etawah, July (<i>A. O. H. & W. E. B.</i>). | Hume Coll. |
| <i>q.</i> ♂ ad. sk. | Etawah, July 19 (<i>W. E. Brooks</i>). | Seebohm Coll. |
| <i>r.</i> Ad. sk. | Raipur district. | Hume Coll. |
| <i>s, t.</i> Ad. sk. | Madras. | Dr. Jerdon [<i>P.</i>].
(Types of species.) |
| <i>u.</i> Ad. sk. | Madras (<i>Jerdon</i>). | Gould Coll. |

12. *Mirafra fringillaris*.

Mirafra fringillaris, *Sundev. (Efv. K. Vet.-Akad. Förh. Stockh. 1850, p. 99; Sharpe, P. Z. S. 1874, p. 649, pl. lxxv, fig. 1; id. ed. Layard's B. S. Afr. p. 528 (1884).*

Mirafra occipitalis, *Gray, Hand-l. B. ii. p. 121, no. 7804 (1870, err.).*

Adult. Above dusky brown, the feathers margined with ashy buff, but the general colour of the upper surface more dingy than in *M. cantillans*, to which it is nearly allied; some of the dorsal feathers washed with fulvous; wing-coverts dull brown, narrowly margined with fulvous, the greater series with rufescent margins, especially at the tip; quills dark brown, the primaries with broad rufous margins, narrowing towards the tip, the secondaries with ashy fulvous edgings; lower back, wings, and upper tail-coverts dull brown, slightly varied with ashy fulvous margins; tail dark brown, the central feathers paler and plainly margined with fulvous, the other feathers less plainly edged, the penultimate one broadly margined with white on the outer web, the outermost feather white at base, but obliquely white for more than the terminal half; lores and a distinct eyebrow sandy buff; ear-coverts rufous, spotted with dark brown, especially on the hinder margin; cheeks, throat, and sides of neck buffy white; rest of under surface creamy buff, washed with isabelline on the chest, which is thickly spotted with dark brown, a few spots of which colour extend on to the throat; under

Alauda præstigiatrix, *Heugl. Syst. Uebers.* p. 43 (1853); ? *Antin. Cat. descr. Ucc.* p. 41 (1864).

Melanocorypha ferruginea, *Brehm, J. f. O.* 1857, p. 82.

Calandrella ferruginea, *Brehm, Naum.* 1856, p. 375.

Ammomanes cinnamomea, *Bp. Notes Delattre*, p. 61.

Geocoraphus cordofanicus, *Heugl. J. f. O.* 1868, p. 227; *id. Orn. N.O.-Afr.* i. pt. 2, p. 687 (1872).

Adult (type of species). Light cinnamon-rufous, with sandy-white margins to many of the dorsal feathers; wing-coverts like the back; quills cinnamon-rufous, the inner secondaries broadly edged with sandy white all round, with a subterminal line of black; the primaries with pale dusky brown tips; centre tail-feathers cinnamon like the back, dusky along the shaft; the rest of the feathers dark brown with sandy-buff edges and tips; the outer feather almost entirely white, with an oblique dusky mark along the inner web, the penultimate feather dusky brown, white on the outer web and across the tip of the inner one; head like the back; lores and eyebrow whitish; ear-coverts cinnamon-rufous, the lower portion whitish, as also the feathers below the eye; cheeks and under surface of body white, with a few tiny spots of dusky cinnamon on the chest; the sides of the latter pale cinnamon; sides of body and flanks also washed with pale cinnamon; under wing-coverts isabel-line buff; quills rufous below with dusky tips. Total length 5·5 inches, culmen 0·55, wing 3·2, tail 2, tarsus 0·9.

Hab. Kordofan and Senaar.

a. Ad. sk.

Kordofan.

H. E. Strickland, Esq. [P.]
(Type of species.)

14. *Mirafra africana*.

Mirafra africana, *Smith, Rep. Exped. C. Afr.*, App. p. 47 (1836); *id. Ill. Zool. S. Afr., Aves*, pl. 88. fig. 1 (1843); *Sharpe, P. Z. S.* 1874, p. 642; *Ayres, Ibis*, 1876, p. 432; *Bocage, Orn. Angola*, p. 374 (1881); *Sharpe in Oates' Matabele-Land*, App. p. 317 (1881); *Shelley, Ibis*, 1882, p. 350; *Sharpe, ed. Layard's B. S. Afr.* pp. 519, 851 (1884).

Alauda planicola, *Licht. Verz. Vög. Kaffernl.* p. 14 (1842, *descr. nullâ*).

Megalophonus africanus, *Gray, Gen. B.* ii. p. 382 (1844); *Layard, B. S. Afr.* p. 213 (1867).

Megalophonus occidentalis, *Hartl. Orn. W.-Afr.* p. 153 (1857); *Bocage, Journ. Lisb.* ii. p. 48 (1868).

Megalophonus rostratus, *Hartl. Ibis*, 1863, p. 326, pl. ix.; *Layard, B. S. Afr.* p. 212 (1867).

Megalophonus planicola, *Finsch & Hartl. Vög. Ostaf.* p. 403 (1870); *Gray, Hand-l. B.* ii. p. 122, no. 7819 (1870); *Ayres, Ibis*, 1871, p. 259, 1880, p. 104; *Fischer, J. f. O.* 1885, p. 137; *Reichen. J. f. O.* 1887, p. 74.

Alauda africana, *Sharpe, Cat. Afr. B.* p. 71 (1871); *Buckley, Ibis*, 1874, p. 384.

Megalophonus africanoides (lapsu), *Shelley, Ibis*, 1875, p. 81.

Adult male in summer plumage. Above light fawn-brown, all the feathers with a distinct blackish shaft-streak down the centre and margined with ashy fulvous; the rump slightly more ashy than the back, narrowly streaked with brown; the upper tail-coverts shading off into light fulvous and having dark brown shaft-stripes; wing-coverts fawn-colour, darker brown in the centre of the feather, margined with fulvous and streaked with dark brown along the shaft, the greater coverts light rufous towards their tips; primary-coverts rufous fawn, with narrow whitish margins; quills rufous fawn, gradually shading off into dark brown, which occupies about the terminal third of the quills, which are margined with ashy white or fawn-colour; the secondaries brown, washed with fawn-colour externally, and broadly margined and tipped with ashy buff, especially the two centre ones, which are rufous fawn at base, extending some way up the margins of the feathers, a shade of the same colour extending over the other feathers near their base, the outer feather creamy buff on the outer web, the penultimate one narrowly margined externally with the same colour; crown of head bright fawn-colour, with a few narrow shaft-lines of dark brown; the forehead minutely streaked, giving it a certain obscurely mottled appearance; lores and a rather broad eyebrow buffy white, as also the sides of the face; the cheeks and ear-coverts minutely spotted with dark brown; the ear-coverts washed with rufous, and inclining to dark brown on their upper margins; throat white; the rest of the under surface isabelline buff, washed with bright fawn colour, minutely spotted with dark brown on the lower throat and chest, and streaked with the same on the sides of the breast; under wing-coverts entirely rich fawn-colour, a little brighter on the inner lining, which is rufous and very conspicuous: "upper mandible dusky, lower mandible pale; tarsi and feet pale; iris light hazel" (*T. Ayres*). Total length 7 inches, culmen 0·8, wing 4, tail 2·7, tarsus 1·3.

Adult female. Smaller than male, and with a much thinner bill. Total length 6·8 inches, culmen 0·75, wing 3·5, tail 2·7, tarsus 1·2.

Adult in winter plumage. Much darker than in summer, and not nearly so rufous on the upper surface, the rufous of the crown entirely obscured by the broad dark-brown shaft-stripes, and the forehead entirely brown, shaded with ashy and slightly tinged with rufous; the hinder back and rump decidedly shaded with ashy; below rather more richly coloured than in summer, the breast largely marked with triangular spots of dark brown; hind neck decidedly more ashy, separating the head from the back.

The specimens from the Eastern Transvaal are more entirely rufous than specimens from other parts of South Africa; but this rufous appearance has probably something to do with the nature of the ground frequented by the birds, added to the abrasion of the plumage during the breeding-season, when the head becomes almost entirely rufous, except for the remains of a few black streaks and spots.

Hab. South Africa, from the Eastern Cape Colony to the Zambesi and thence to the Zanzibar district of Eastern Africa, and on the west to Benguela, and even to Gaboon.

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| <i>a, b.</i> Ad. sk. | S.E. Africa. | Sir A. Smith [C.]
(Types of species.) |
| <i>c.</i> Ad. sk. | Kingwilliamstown. | Major H. Trevelyan
[P.] |
| <i>d-g.</i> ♂ ; <i>h, i.</i> ♀
ad. ; <i>k.</i> Juv. sk. | Elands Post, March, July
(<i>T. C. Atmore</i>). | Sharpe Coll. |
| <i>l, m.</i> ♂ ♀ ad. sk. | Natal (<i>T. Ayres</i>). | J. H. Gurney, Esq.
[P.] |
| <i>n.</i> ♀ ad. sk. | Natal. | T. Ayres, Esq. [C.] |
| <i>o.</i> ♂ ad. sk. | Natal (<i>T. Ayres</i>). | Salvin-Godman Coll. |
| <i>p.</i> ♂ juv. sk. | Weenen, Natal, April 10
(<i>T. Arnold</i>). | Shelley Coll. |
| <i>q.</i> ♀ ad. sk. | Durban, Natal, April (<i>G. E. S.</i>). | Shelley Coll. |
| <i>r, s.</i> ♂ ♀ ad. sk. | Pinetown, May (<i>T. L. Ayres</i>). | Shelley Coll. |
| <i>t-x.</i> Ad. sk. | Pinetown, Feb., Oct. (<i>T. L. A.</i>). | R. B. Sharpe, Esq.
[P.] |
| <i>y.</i> ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |
| <i>z, a'.</i> ♂ ad. sk. | Potchefstroom, Jan. (<i>T. Ayres</i>). | Dr. Bradshaw. |
| <i>b', c'.</i> ♂ ♀ ad. sk. | Rustenburg, Feb., Aug.
(<i>W. Lucas</i>). | Shelley Coll. |
| <i>d'-g'.</i> ♂ ; <i>h'.</i> ♀
ad. sk. | Rustenburg, June-Sept.
(<i>W. Lucas</i>). | R. B. Sharpe, Esq.
[P.] |
| <i>i'.</i> ♂ ad. sk. | Tibakai's Vley (<i>F. Oates</i>). | W. E. & C. G. Oates,
Esqrs. [P.] |
| <i>k'.</i> Ad. sk. | Makalaka country (<i>Dr. Bradshaw</i>). | Shelley Coll. |
| <i>l', m'.</i> ♂ ad. sk. | Elephant Vley, Nov. 20
(<i>C. J. Andersson</i>). | Sharpe Coll. |

15. *Mirafra assamica*.

Mirafra assamica, *McClell. P. Z. S.* 1839, p. 162 ; *Blyth, J. A. S. Beng.* xi. p. 199 (1842), xiii. p. 958 (1844) ; *Gray, Gen. B.* ii. p. 383 (1844) ; *Bp. Consp.* i. p. 243 (1850) ; *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 476 (1856) ; *Jerd. B. Ind.* ii. p. 416 (1863) ; *Beav. Ibis*, 1868, p. 179 ; *Godw.-Aust. J. A. S. Beng.* xxxix. p. 272 (1870) ; *Gray, Hand-l. B.* ii. p. 121, no. 7797 (1870) ; *Hume, Nests & Eggs Ind. B.* p. 473 (1873) ; *Ball, Str. F.* 1874, p. 421, 1877, p. 223 ; *Cripps, t. c.* p. 294 ; *Blyth & Wald. B. Burm.* p. 96 (1875) ; *Anderson, Zool. Exped. Yun-nan*, p. 606 (1878) ; *Hume, Str. F.* 1879, p. 108, 1880, p. 257 ; *Oates, Handb. B. Br. Burm.* i. p. 375 (1883).

Plocealauda typica, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 297. figs. 1, 2 (no. 724) ; *id. in Gray's Zool. Misc.* p. 84 (1844).

Mirafra assamensis, *Blyth, Ann. & Mag. Nat. Hist.* xii. p. 166 (1843) ; *id. Cat. B. Mus. As. Soc.* p. 184 (1849).

Mirafra javanica (*nec Horsf.*), *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 100 (1846).

Mirafra immaculata, *Hume, Str. F.* 1873, p. 12; *id. Str. F.* 1879, p. 257.

Mirafra erythrocephala, *Salvad. & Gigl. Atti R. Accad. Torino*, xx. p. 429 (1885 = pt. hiem.).

Adult male. General colour above dark ashy with broad black centres to the feathers; the lower back and rump more uniform, the upper tail-coverts blackish with ashy edges to the feathers, wing-coverts, bastard-wing, and primary-coverts dark brown, edged with ashy whitish, tinged with rufous; quills dark brown, conspicuously rufous along the outer margin; the secondaries dark brown, more narrowly margined with ashy whitish tinged with rufous, especially near the base of the outer web; the inner secondaries with rather broad ashy margins; tail-feathers dark brown, with ashy-whitish margins and tinged with rufous near the base of the outer web, the outer feathers margined with white; head and neck like the back, and similarly centred with black, the hind neck slightly lighter grey; lores and eyebrow, as well as the sides of the face, ear-coverts, and cheeks, sandy buff, with a blackish shade on the hinder margin of the ear-coverts; sides of neck ashy, striated with blackish like the hinder neck, and separated by a line of sandy buff from the black mark on the hinder ear-coverts; throat white; remainder of under surface of body sandy buff, the sides of the body washed with ashy brown; the fore neck and chest distinctly spotted with small triangular spots of dark brown; a few tiny dots on the malar line also; long under tail-coverts with dusky centres; under wing-coverts and axillaries ferruginous; quills dusky below, deep ferruginous or chestnut on both webs, the shaft, however, remaining brown to the base: "upper mandible dusky, the lower one pale horny; legs pinkish brown, darkest on the toes; iris pale brown" (*E. W. Cleveland*). Total length 5.5 inches, culmen 0.6, wing 3.3, tail 1.8, tarsus 1.

In the winter plumage the whole tone of the upper surface is more distinctly ashy grey, which also pervades the sides of the upper breast; the eyebrow and sides of face are more distinctly fulvescent, and the ear-coverts are spotted with black; the spots along the malar line are also much more distinct, and those on the chest also well pronounced, the wing-coverts and inner secondaries are rather broadly edged with sandy buff, and the margins of the tail-feathers are also distinctly sandy buff.

Adult female. Browner than the male both in winter and summer, and having the lower back and rump slightly streaked with blackish. Total length 6 inches, culmen 0.65, wing 3.1, tail 1.75, tarsus 0.95.

Full-grown young birds are brown like the adult female, but have remains of pale fringes to the feathers of the upper surface, especially on the wing-coverts; the bastard-wing and primary-coverts with a good deal of rufous; the quills and tail-feathers externally rufous, the primaries being deep chestnut with dusky brown centres widening towards the ends; eyebrow, sides of face,

cheeks, and throat with the same dark marking on the ear-coverts as the adult; remainder of under surface of body sandy buff with dusky brown, triangular spots on the fore neck and chest.

Hab. From the neighbourhood of Masuri in the North-western Himalayas, along the Himalayas to Assam and Arakan, and throughout Eastern Bengal to Maunbhoon; Cochin China.

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| <i>a.</i> Ad. sk. | Deoban, Masuri. | Hume Coll. |
| | | (Type of <i>M. immaculata</i> .) |
| <i>b.</i> ♂ ad. sk. | Kumaon, March 19 (<i>G. King</i>). | Hume Coll. |
| <i>c.</i> ♀ ad. sk. | Mozuffernugger Dist., June 19
(<i>G. F. L. Marshall</i>). | Hume Coll. |
| <i>d-h.</i> Ad. sk. | Nepal. | Hodgson Coll. |
| | | (Types of <i>Plocealauda typica</i> .) |
| <i>i-o.</i> Ad. sk. | Nepal (<i>B. H. Hodgson</i>). | India Museum. |
| <i>p, q.</i> Ad. sk. | Sikhim. | Hume Coll. |
| <i>r, s.</i> Ad. sk. | Sikhim. | Seeborn Coll. |
| <i>t-x.</i> Ad. sk. | Darjeeling. | Hume Coll. |
| <i>y.</i> Ad. sk. | Buxa Doars, Jan. (<i>L. Mandelli</i>). | Hume Coll. |
| <i>z-i'.</i> Ad. sk. | Bhotan Doars, Jan., Feb., April
(<i>L. Mandelli</i>). | Hume Coll. |
| <i>k'.</i> Ad. sk. | Assam (<i>McClelland</i>). | India Museum. |
| | | (Type of species.) |
| <i>l', m', n'.</i> Ad. sk. | Assam (<i>A. W. Chennell</i>). | Tweeddale Coll. |
| <i>o'.</i> ♀ ad. sk. | Dibrughar, Jan. 13 (<i>J. R. Cripps</i>). | Hume Coll. |
| <i>p'-t'.</i> ♂ ad. sk. | Sadhya, Assam, Jan., April-June
(<i>J. Cockburn</i>). | Hume Coll. |
| <i>u'.</i> ♂ ad. sk. | N. Khasia Hills, Dec. (<i>A. W. Chennell</i>). | Tweeddale Coll. |
| <i>v', w' x'.</i> ♂ ad.;
<i>y'.</i> ♀ ad. sk. | Sylhet, Jan. (<i>A. O. H.</i>). | Hume Coll. |
| <i>z'.</i> ♂ ad. sk. | Dilkoosha, Cachar (<i>J. Inglis</i>). | Hume Coll. |
| <i>a'', b''.</i> ♂ ad. sk. | Lakhipur, Cachar, Jan. 31 (<i>A. O. H.</i>). | Hume Coll. |
| <i>c'-f'.</i> Ad. sk. | Tipperah. | Hume Coll. |
| <i>g'.</i> Ad. sk. | Tipperah. | Tweeddale Coll. |
| <i>h'', i''.</i> ♂ ♀ ad. sk. | Akyab, April (<i>J. Armstrong</i>). | Hume Coll. |
| <i>k''-p''.</i> Ad. sk. | Dacca. | Hume Coll. |
| <i>q''.</i> ♀ ad.; <i>r''.</i> Pull. sk. | Faridpur, March 21 (<i>J. R. Cripps</i>). | Hume Coll. |
| <i>s''.</i> Ad. sk. | Barrackpur (<i>Tytler</i>). | India Museum. |
| <i>t''.</i> ♂ ad. sk. | Shoga, Feb. 23 (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>u'', v', w'.</i> ♂ ad.; <i>x'', y'.</i> ♀ ad. sk. | Assensole, April, Oct. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>z''.</i> ♂ ad. sk. | Reurwal, Basti Dist., Dec. 27
(<i>E. W. Cleveland</i>). | Hume Coll. |
| <i>a³.</i> ♂ ad. sk. | Chota Nagpur, April 9 (<i>V. Ball</i>). | Hume Coll. |
| <i>b³.</i> Ad. sk. | Maunbhoon, March (<i>R. C. Beavan</i>). | Tweeddale Coll. |

16. *Mirafra damarensis* *.

Mirafra damarensis, Sharpe, P. Z. S. 1874, p. 650, pl. lxxv. fig. 2.

Adult male in winter plumage (type of species). Similar to *M. ussamicæ*, but very much paler and more pearly grey, and having the spots on the chest very minute and indistinct; primary-coverts almost entirely rufous, with concealed dusky brown on the inner webs; primaries entirely rufous at base, this colour extending across both webs, and only shaded with dusky brown along the shaft. Total length 5.5 inches, culmen 0.65, wing 3.45, tail 2.4, tarsus 1.1.

Hab. Ovampo-Land, S.W. Africa.

a, b. ♂ ad. sk. Ondonga, Ovampo-Land, Oct., Nov. Sharpe Coll.
(C. J. Andersson). (Types of species.)

17. *Mirafra erythroptera*.

Mirafra javanica (nec Horsf.), Jerd. Madr. Journ. xi. p. 33 (1840).

Mirafra erythroptera, Jerd. Madr. Journ. xiii. p. 136 (1844). *id.* Ill.

Ind. Orn. pl. 38 (1849); Blyth, J. A. S. Beng. xiii. p. 958 (1844);

Gray, Gen. B. iii. App. p. 18 (1849); Blyth, Cat. B. Mus. As. Soc.

p. 133 (1849); Ep. Consp. i. p. 243 (1850). Horsf. & Moore, Cat.

B. Mus. E. I. Co. ii. p. 474 (1854); Jerd. B. Ind. ii. p. 418 (1863);

Blyth, Ibis, 1867, p. 45; Beavan, Ibis, 1868, p. 179; Gray, Hand-l.

B. ii. p. 121, no 7800 (1870); Hayes Lloyd, Ibis, 1873, p. 414;

Adam, Str. F. 1873, p. 388; Ball, Str. F. 1874, p. 421; Butler,

Str. F. 1875, p. 409; Davidson & Wenden, Str. F. 1877, p. 85;

Ball, t. c. p. 223; Butler, Cat. B. Sind etc. p. 48 (1879); Hume,

Str. F. 1879, p. 108; Butler, Cat. B. S. Bomb. Pres. p. 63 (1880);

Reid, Str. F. x. p. 57 (1881); Davids, t. c. p. 314, Swinh & Barnes,

Ibis, 1885, p. 129; Reid, Cat. Lucknow Mus. p. 138 (1886);

Macgr. Str. F. p. 440 (1887).

Adult male. Light sandy brown, plentifully mottled with dark brown centres to the feathers; the lower back and rump more uniform brown, the upper tail-coverts with dusky centres: head a little more rufous on the crown, but mottled like the back with blackish centres; round the hind neck a slight indication of a pale ashy collar like the sides of the neck; wing-coverts like the back with dusky centres and pale edges of sandy white, all distinctly washed with sandy rufous near the ends; primary-coverts deep cinnamon-rufous with blackish shafts; quills also entirely cinnamon-rufous, with dusky shafts and a dusky brown mark near the end of

* The following species is probably allied to *M. damarensis*.

MIRAFRA PÆCILOSTERNA.

Alauda pæcilostrina, Reichen. Orn. Centralbl. 1879, p. 155; *id.* J. f. O. 1879, p. 353.

Megalophonus massaius, Fischer & Reichen J. f. O. 1884, p. 55.

Megalophonus pæcilostrina, Fischer, Zeitschr. ges. Orn. i. p. 318 (1884). *id.* J. f. O. 1885, p. 137.

Hab. Eastern Africa.

the primaries; this brown mark increasing in extent towards the outer feathers, which are margined with white externally; the innermost secondaries brown like the greater wing-coverts; tail-feathers blackish brown with scarcely any pale margin, except to the centre feathers and the outermost, which is white along the outer web; a buffy-white eyebrow; lores also buffy white; feathers below the eye white; ear-coverts whitish, tinged with sandy buff, and with distinct spots of black; throat, cheeks, and sides of neck white; remainder of under surface of body white with a tinge of sandy buff on the sides of the body and thighs; the lower throat, fore neck, and chest with distinct triangular black spots; sides of upper breast strongly washed with sandy buff; under wing-coverts cinnamon-buff; quill-lining deeper ferruginous: "bill horny brown above, fleshy below; legs flesh-colour; iris hazel" (*E. A. Butler*). Total length 5·8 inches, culmen 0·55, wing 3, tail 2, tarsus 0·8.

Adult female. Similar to the male, but smaller. Total length 5·8 inches, culmen 0·45, wing 3·05, tail 2, tarsus 0·85.

Young birds are profusely mottled with black, after the manner of young Larks, and the rufous on the wing is even more pronounced than in the adults, with very little dusky brown at the ends of the feathers.

The *adults in winter plumage* seem to differ from the summer plumage only in having the light edges to the feathers rather broader, imparting a more mealy appearance.

Hab. North-western India as far east as the Assensole district, and south to Central India, the Deccan, and the Carnatic.

| | | |
|---|--|-----------------------|
| <i>a.</i> Ad. sk. | Moolu, Kattiawar, Feb. 25. | Col. Hayes Lloyd [P.] |
| <i>b, c, d.</i> ♂ ad. sk. | Deesa, April, July, Dec. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>e, f.</i> ♂ ad.; <i>g.</i> ♀ ad. sk. | Sambhur, March, May, July (<i>E. A. Adam</i>). | Hume Coll. |
| <i>h.</i> ♂ ad. sk. | Oodeypore, Feb. 12 (<i>G. King</i>). | Hume Coll. |
| <i>i, k.</i> ♂ ad. sk. | Ajmere, Dec. (<i>A. O. H.</i>). | Hume Coll. |
| <i>l.</i> Ad. sk. | Delhi. | Hume Coll. |
| <i>m.</i> ♀ ad. sk. | Rohtuk Dist., Feb. | Hume Coll. |
| <i>n.</i> ♂ ad. sk. | Sona, Gurgaon Dist., Jan. (<i>A. O. H.</i>). | Hume Coll. |
| <i>o, p.</i> ♂ ♀ ad. sk. | Umbala, Jan. (<i>Dr. Scott</i>). | Tweeddale Coll. |
| <i>q, r.</i> Ad. sk. | Shahpur, March, Oct. | Hume Coll. |
| <i>s, t.</i> Ad. sk. | Saharunpur, Nov. (<i>G. F. L. Marshall</i>). | Hume Coll. |
| <i>u.</i> Ad. sk. | Saharunpur (<i>T. C. Jerdon</i>). | Gould Coll. |
| <i>v.</i> ♂ ad. sk. | Ferozpur, Jan. 24 (<i>C. H. T. Marshall</i>). | Hume Coll. |
| <i>w.</i> ♂ ad. sk. | Lahore, Jan. 4 (<i>C. H. T. M.</i>). | Hume Coll. |
| <i>x-e'.</i> ♂ ♀ ad. sk. | Etawah Dist., March, July, Sept., Nov., Dec. (<i>A. O. H. & W. E. Brooks</i>). | Hume Coll. |
| <i>f'.</i> Ad. sk. | Jhansi, Sept. | Hume Coll. |
| <i>g, h'.</i> Ad. sk. | Saugor, July. | Hume Coll. |
| <i>i'.</i> Ad. sk. | Lucknow, April 10. | Col. Way [P.]. |

| | | |
|---|---|--|
| <i>k</i> . Ad. sk. | Futtehgurh Dist., Oct. (<i>A. Seebohm</i> Coll. <i>Anderson</i>). | |
| <i>l</i> , <i>m</i> ', <i>n</i> '. ♂ ♀ ad. sk. | Mogulserai, Feb., Sept., Oct. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>o</i> '. ♂ ad. sk. | Mirzapur Dist., March (<i>R. Thompason</i>). | Hume Coll. |
| <i>p</i> ', <i>q</i> '. ♂ ♀ ad. sk. | Muddapur, April, Sept. (<i>W. E. B.</i>). | Hume Coll. |
| <i>r</i> ', <i>s</i> '. ♂ ♀ ad. sk. | Assensole, Feb., April (<i>W. E. B.</i>). | Hume Coll. |
| <i>t</i> . Ad. sk. | Manbhum, April (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| <i>u</i> '- <i>a</i> '. ♂ ad. sk. | Raipur, Jan. to March. | Hume Coll. |
| <i>b</i> '', <i>c</i> ''. Ad. et juv. sk. | Nagpur, July. | Hume Coll. |
| <i>d</i> ''. Ad. sk. | S.E. Berar, Jan. 21 (<i>W. T. Blanford</i>). | Tweeddale Coll. |
| <i>e</i> ''. Ad. sk. | Chanda, Jan. (<i>W. T. Blanford</i>). | Hume Coll. |
| <i>f</i> ''. ♂ ad.; <i>g</i> ''- <i>k</i> ''. ♀ ad. sk. | Khandeish, Feb., May, July, Nov. (<i>J. Davidson</i>). | Hume Coll. |
| <i>l</i> '. ♂ ad. sk. | Mahabaleshwur Hills, June (<i>S. B. Fairbank</i>). | Hume Coll. |
| <i>m</i> '', <i>n</i> ''. ♂ ad. et juv. sk. | Ahmednuggar, July, Oct. (<i>S. B. F.</i>). | Tweeddale Coll. |
| <i>o</i> ''. ♀ ad. sk. | Darwa, Deccan, March 29. | Hume Coll. |
| <i>p</i> ''. Ad. sk. | Deccan (<i>Burgess</i>). | Gould Coll. |
| <i>q</i> '', <i>r</i> ''. Ad. sk. | Carnatic. | T.C. Jerdon, Esq. [P.] (Types of species.) |
| <i>s</i> ''. Ad. sk. | Carnatic (<i>Jerdon</i>). | Gould Coll. |

18. *Mirafra affinis* *.

Mirafra affinis, *Jerd. Madr. Journ.* xiii. p. 136 (1844); *id. Ill. Ind. Orn.* text to pl. 38 (1849); *Blyth, J. A. S. Beng.* xiii. p. 959 (1844); *id. Cat. B. Mus. As. Soc.* p. 133 (1849); *Bp. Conspect.* i. p. 243 (1850); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 475 (1856); *Jerd. B. Ind.* ii. p. 417 (1863); *Gray, Hand-l. B.* ii. p. 121, no. 7801 (1870); *Holdsw. P. Z. S.* 1872, p. 465; *Hume, Nests & Eggs Ind. B.* p. 474 (1873); *Ball, Str. F.* 1874, p. 422, 1877, p. 223; *Fairb. t.c.* p. 403; *Legge, B. Ceylon*, p. 634 (1879); *Hume, Str. F.* 1879, p. 103; *Davidson, Str. F.* x. p. 404 (1883); *Reid, Cat.*

reddish to yellowish brown" (*W. V. Legge*). Total length 5·6 inches, culmen 0·55, wing 3·3, tail 1·9, tarsus 1·09.

Adult female. Similar to the male, but smaller. Total length 5·3 inches, culmen 0·55, wing 3·1, tail 1·65, tarsus 1·05.

Hab. Ceylon and Southern India as high as Maunbhoom.

| | | |
|--|--|---|
| <i>a.</i> ♂ ad. sk. | Trincomalie, Ceylon, Oct. 9. | Colonel W. V. Legge
[C.]. |
| <i>b.</i> Ad. sk. | Ceylon. | Gould Coll. |
| <i>c.</i> Ad. sk. | Ceylon. | Tweeddale Coll. |
| <i>d, e.</i> ♂ ♀ ad. sk. | Columbo, Ceylon, Nov. (<i>Hart</i>). | Hume Coll. |
| <i>f, g, h.</i> Ad. sk. | Anjango, Travancore. | Hume Coll. |
| <i>i.</i> ♂ ad. sk. | Eastern base of Palani Hills,
June 7 (<i>S. B. Fairbank</i>). | Hume Coll. |
| <i>k-l.</i> Ad. sk. | Coorg. | Tweeddale Coll. |
| <i>m.</i> ♂ ad. sk. | Coonoor, Jan. (<i>Dr. Day</i>). | Hume Coll. |
| <i>n-q.</i> ♂; <i>r-u.</i> ♀
ad. sk. | Mysore, March, May (<i>W.</i>
<i>Davison</i>). | Hume Coll. |
| <i>v, w.</i> ♀ ad. sk. | Muddur, Mysore, July (<i>W.</i>
<i>Davison</i>). | R. B. Sharpe, Esq.
[P.]. |
| <i>x.</i> ♂ ad. sk. | Bangalore, Sept. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>y.</i> ♀ ad. sk. | Ellore, Feb. | Hume Coll. |
| <i>z-e'.</i> ♂ ad.; <i>f'-i'.</i>
Ad. sk. | Madras, March. | Hume Coll. |
| <i>k', l'.</i> Ad. sk. | Madras. | T. C. Jerdon, Esq. [P.].
(Types of the species.) |
| <i>m'.</i> ♂ ad. sk. | St. Thomas' Mount, Madras,
March. | Oates Coll. |
| <i>n', o', p'.</i> Ad. sk. | Maunbhoom, Feb., April (<i>R. C.</i>
<i>Beavan</i>). | Tweeddale Coll. |

Subsp. *α*. *Mirafra microptera*.

Mirafra microptera, *Hume*, *Str. F.* i. p. 483 (1873), viii. p. 108 (1879).

Mirafra affinis (*nec Jerd.*), *Blyth & Wald. B. Burm.* p. 95 (1875);

Oates, *Handb. B. Br. Burm.* i. p. 376 (1883).

Adult male. Similar to *Mirafra affinis*, but smaller and rather purer white below: "bill, lower mandible and margins of the upper very light pinkish flesh-colour, remainder of upper mandible dark horn-colour; legs light flesh-colour; claws pinkish; iris hazel" (*E. W. Oates*). Total length 5 inches, culmen 0·6, wing 2·6-2·8, tail 1·75, tarsus 0·9.

The Cochin China specimens are in worn and dark plumage, and I am not quite certain that they are identical with *M. microptera*. The wing measures 2·8-2·9 inches.

Hab. Thayetmyo district, Burmah, extending to Cochin China.

| | | |
|--------------------------|---|--|
| <i>a.</i> ♀ ad. sk. | Palow, Thayetmyo, May 26
(<i>E. W. Oates</i>). | Hume Coll.
(Type of <i>M. microptera</i> .) |
| <i>b, c.</i> Ad. sk. | Thayetmyo, July, Oct. (<i>E. W.</i>
<i>Oates</i>). | Hume Coll. |
| <i>d, e.</i> ♂ ♀ ad. sk. | Thayetmyo, Sept. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>f.</i> Ad. sk. | Saigon, Cochin China, May. | M. E. Pierre. |
| <i>g, h.</i> Ad. sk. | Baria, Cochin China, July. | M. E. Pierre. |

19. *Mirafra africanoides*.

Mirafra africanoides, *Smith, Rep. Exped. C. Afr.* p. 47 (1836); *id. Ill. Zool. S. Afr., Accs.* pl. 88, fig. 2 (1843); *Sharpe, P. Z. S.* 1874, p. 648, *id. ed. Layard's B. S. Afr.* p. 523 (1884).

Megalophonus africanoides, *Gray, Gen. B.* ii. p. 382 (1844); *Bp. Consp.* i. p. 244 (1850); *Layard, B. S. Afr.* p. 214 (1867); *Gray, Hand-l. B.* ii. p. 122, no. 7816 (1870); *Gurney, in Anders. B. Dam. Ld.* p. 198 (1872).

Alauda africanoides, *Sharpe, Cat. Afr. B.* p. 71 (1871).

Adult (type of species). Above sandy rufous, with narrow black shaft-stripes to the whole of the upper surface, the neck very slightly inclining to greyish; wing-coverts dark brown, with narrow blackish shaft-stripes, margined with sandy rufous, inclining to fulvous on the extreme edge of the feathers; primary-coverts dark brown, with broad margins of sandy rufous; quills ashy brown, rufous on the outer web and very conspicuous, the inner web also rufous, but separated for the entire length of the quill by the dark brown of the shaft; the secondaries ashy brown, especially the innermost, which are distinctly shaded with grey, all margined with sandy buff; upper tail-coverts pale ashy brown, broadly washed with whitish brown; tail dark brown, the centre feathers washed with clear grey and broadly margined with sandy rufous, the others narrowly and almost imperceptibly edged with pale sandy, the outermost narrowly bordered with whitish for the whole length of the outer web; lores and feathers round the eye whitish, as well as a distinct eyebrow; feathers in front of the eye dusky; ear-coverts bright sandy rufous; cheeks, throat, and underparts generally whitish, washed with sandy isabelline on the chest, the cheeks with a few indistinct spots, the chest sparsely marked with triangular spots of dusky black; under wing-coverts entirely rufous, as also the greater part of the inner web of the quills: "bill yellowish brown, shaded on the culmen with brownish red; tarsi and toes sienna-yellow, brightened with flesh-red; iris light chestnut" (*Sir A. Smith*). Total length 6.5 inches, culmen 0.6, wing 3.65, tail 2.7, tarsus 1.1.

Adult female. Similar to the male in colour. Total length 5.7 inches, culmen 0.55, wing 3.45, tail 2.5, tarsus 0.9.

Hab. South Africa, from the Orange River to the Zambesi on the east, and to Damara-Land on the west.

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|------------------------------|--|---|
| <i>a, b, c.</i> Ad. sk. | Orange River district. | Sir A. Smith [C.].
(Types of species.) |
| <i>d, e.</i> Ad. sk. | Orange River (<i>A. Smith</i>). | Purchased. |
| <i>f.</i> ♂ ad. sk. | Orange River, July 30. | Dr Bradshaw [P.]. |
| <i>g.</i> ♂ ad. sk. | Griqualand (<i>T. C. Atmore</i>). | Sharpe Coll. |
| <i>h.</i> ♀ ad. sk. | Hope Town (<i>T. C. A.</i>). | Sharpe Coll. |
| <i>i, k, l, m.</i> ♂ ad. sk. | Damara Land, June to Sept.
(<i>C. J. Anderson</i>). | Sharpe Coll. |
| <i>n.</i> Ad. sk. | Ondonga, Ovampo-Land, June
(<i>C. J. A.</i>). | Sharpe Coll. |
| <i>o.</i> Ad. sk. | Makalaka country (<i>Bradshaw</i>). | Shelley Coll. |

Subsp. *a*. **Mirafra alopex.**

Mirafra cordofanica (*nec Strickl.*), *Shelley, Ibis*, 1885, p. 407.

Adult. Very similar to *M. africanoides*, but much smaller and of a deep foxy-red colour above: "bill horn-colour, passing into flesh-colour on the greater portion of the lower mandible; legs flesh-colour" (*E. Lort Phillips*). Total length 5·6 inches, culmen 3·55, wing 3·05, tail 1·85, tarsus 0·85.

Hab. Somali-Land.

a. Ad. sk. Somali-Land (*E. Lort Phillips*). Shelley Coll.

20. **Mirafra nævia.**

Alauda nævia, *Strickl. Contr. Orn.* 1852, p. 152; *Gray, Hand-l. B.* ii. p. 118, no. 7756 (1870); *Sharpe, Cat. Afr. B.* p. 72 (1871).

Megalophonus sabota (*nec Smith*), *Gurney, in Anderss. B. Dam. Ld.* p. 195 (1872).

Megalophonus nævius, *Gurney, t. c.* p. 199 (1872).

Mirafra nævia, *Sharpe, P. Z. S.* 1874, p. 646; *id. ed. Layard's B. S. Afr.* p. 542 (1884).

Adult male in summer plumage. Above sandy rufous, with dark brown centres to the feathers, the head with rather paler sandy margins; the hind neck distinctly inclining to ashy, and separating the head from the back; scapulars blackish in the centre, with very broad margins of sandy rufous on both sides; wing-coverts like the back, with concealed blackish centres to the feathers, which are margined with sandy, shading off into fulvous on the extreme edge, the greater series more broadly margined, the primary-coverts more narrowly; quills blackish, the primaries narrowly tipped with greyish white and margined externally with sandy rufous, the secondaries much more broadly, and bordered with fulvous on their extreme edge; upper tail-coverts sandy rufous, inclining to brown in the centre of the feathers, and narrowly tipped with greyish buff; tail black, very narrowly margined and tipped with sandy buff, the centre feathers broadly margined with sandy rufous, the outermost externally margined with a narrow edging of light sandy colour, changing to white at the extreme tip; lores and a tolerably plain eyebrow isabelline; feathers in front of the eye dusky, those under it isabelline, marked with blackish; ear-coverts dark brown, very plainly and regularly streaked with sandy buff; throat and cheeks white, the latter washed with isabelline on the chest and sides of the body, the lower throat and chest plainly spotted with triangular markings of light brown; under wing-coverts ashy brown, the innermost washed with sandy, the inner lining of the wing entirely ashy brown or lead-coloured, excepting the base of the inner web, which inclines to sandy: "iris hazel" (*T. C. Atmore*). Total length 6·5 inches, culmen 0·75, wing 3·5, tail 2·6, tarsus 0·95.

Adult female. Similar to the male in colour, but a little smaller. Total length 5·7 inches, culmen 0·65, wing 3·4, tail 2·3, tarsus 0·9.

Adult in winter plumage. Paler and more mealy in colour than the summer plumage, the grey collar round the hind neck being very distinct, as well as the white eyebrow and the margins to the wing-coverts and quills; under surface of body white, tinged with isabelline on the chest, flanks, and thighs, the chest with a few narrow streaks of pale brown, the entire lining of the wing ashy, as also the under wing-coverts, some of the latter margined with sandy buff.

Hab. From Damara-Land south to the Orange River and Griqualand.

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|-----------------------------|---|--------------------|
| a. ♂ ad. sk. | Orange River, June. | Dr. Bradshaw [P.]. |
| b, c, d. ♂ ad. sk. | Griqualand (T. C. Atmore). | Sharpe Coll. |
| e, f. ♂ ♀ ad. sk. | Great Namaqua-Land, June (C. J. Andersson). | Sharpe Coll. |
| g, h, i. ♂; k, l. ♀ ad. sk. | Damara-Land, July, Aug. (C. J. A.). | Sharpe Coll. |

21. *Mirafra sabota*.

Mirafra sabota, Smith, *Rep. Exped. C. Afr.*, App. p. 47 (1836); *id.* *Ill. Zool. S. Afr.*, *Aves*, pl. 89, fig. 2 (1843, err. pro fig. 1); Sharpe, *P. Z. S.* 1874, p. 645; *id.* ed. Layard's *B. S. Afr.* p. 526 (1884); *id.* in Oates's *Matabele-Land*, App. p. 318 (1881); Reichenb. *J. f. O.* 1887, p. 74.

Megalophonus sabota, Gray, *Gen. B.* ii. p. 382 (1844); *Bp. Consp.* i. p. 244 (1850); Layard, *B. S. Afr.* p. 213 (1867); Gray, *Hand-l. B.* ii. p. 122, no. 7821 (1870).

Megalophonus nævius (*nec Strickl.*), Ayres, *Ibis*, 1871, p. 259, 1873, p. 280, 1880, p. 104.

Alauda nævis (*nec Strickl.*), Buckley, *Ibis*, 1874, p. 283.

Mirafra nævis (*nec Strickl.*), Shelley, *Ibis*, 1882, p. 350; Ayres, *Ibis*, 1886, p. 290.

Adult male. Similar to *M. nævis*, but smaller, and with a very much smaller bill, and having the breast more thickly spotted with

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| <i>f.</i> ♀ ad. sk. | Weenen, Natal, March 26 (<i>T. Arnold</i>). | Shelley Coll. |
| <i>g, h.</i> ♂ ♀ ad. sk. | Swaziland, July (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>i, k, l.</i> ♂ ad. sk. | Transvaal, July (<i>T. E. B.</i>). | Shelley Coll. |
| <i>m.</i> ♂ ad. sk. | Transvaal (<i>T. Ayres</i>). | Sharpe Coll. |
| <i>n.</i> ♀ ad. sk. | Limpopo River, Aug. 18 (<i>W. Lucas</i>). | Sharpe Coll. |
| <i>o, p, q, r.</i> Ad. ;
<i>s.</i> Juv. sk. | Rustenburg, Feb., May, June, (<i>W. Lucas</i>). | Shelley Coll. |
| <i>t, u.</i> Ad. sk. | Tati, Matabele Country, Oct. 25 (<i>F. Oates</i>). | W. E. & C. G. Oates, Esqs. [P.]. |

22. *Mirafra nigricans*.

Alauda nigricans, *Sunder. Œfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 99.

Mirafra nigricans, *Gray, Hand-l. B.* ii. p. 121, no. 7805 (1870); *Sharpe, P. Z. S.* 1874, p. 651; *Bocage, Orn. Angola*, p. 376, pl. viii. fig. 1 (1881); *Ayres, Ibis*, 1884, p. 231, 1886, p. 200.

Adult male. General colour above ashy black, the feathers broadly edged with sandy rufous; wing-coverts, quills, and tail-feathers black, with broad rufous margins; the inner primaries and secondaries with rather broad white tips; head like the back; a broad white eyebrow; lores and feathers round the eye sandy white, with a supraloral line of black; a streak of black from the base of the bill to the ear-coverts, which are also black with a central patch of white; cheeks and throat sandy white, separated by a broad malar line of black; remainder of under surface of body sandy white, the lower throat, fore neck, and breast thickly spotted with large triangular black markings, taking the form of linear streaks on the lower breast; flanks also mottled with black bases, many of the feathers being black on the inner web; under wing-coverts black, with broad whitish edges; quills dusky blackish below, pale rufous near the base of the inner webs: "bill dusky, the lower mandible pale at the base; feet yellowish white; iris hazel" (*T. Ayres*). Total length 7·3 inches, culmen 0·7, wing 4·65, tail 2·75, tarsus 1·15.

Adult in breeding-plumage. Blacker than in winter plumage, all the pale edgings becoming worn off, the black markings on the face and breast being very distinct.

Hab. Eastern Transvaal to Benguela.

| | | |
|---------------------|--|--------------------|
| <i>a.</i> ♂ ad. sk. | Rustenburg, E. Transvaal, Jan. 10 (<i>T. Ayres</i>). | Shelley Coll. |
| <i>b.</i> Ad. sk. | Makalaka Country. | Dr. Bradshaw [C.]. |

23. *Mirafra erythropygia*.

Alauda erythropygia, *Strickl. P. Z. S.* 1850, p. 219, pl. 24; *Gray, Hand-l. B.* ii. p. 118, no. 7754 (1870); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 676 (1871).

Melanocorypha infusata, *Heugl. J. f. O.* 1864, p. 273.

Melanocorypha erythropyga, *Heugl. J. f. O.* 1868, p. 222.

Alanda infusata, *Heugl. Orn. N.O.-Afr.* 1. pt. 2, p. 677 (1871).

Ammomanes erythropyga, *Salvin, Cat. Strickl. Coll.* p. 258 (1882).

Adult. Blackish brown, with distinct rufous margins to the feathers of the upper surface, the wing-coverts similarly edged; quills black, with whitish tips to the inner primaries and secondaries; rump, upper tail-coverts, and base of tail rufous, the end of the tail dark brown, the rufous extending towards the outer feather; lores and a distinct eyebrow yellowish white, as well as the feathers below the eye; cheeks and under surface of body creamy white; lores with a black line; ear-coverts black, with a white patch; a broad black malar stripe; lower throat and breast thickly spotted with black, which forms a patch in the centre of the chest; flanks also mottled with black. Total length 7·4 inches, culmen 0·65, wing 4·25, tail 2·9, tarsus 1.

Mr. Salvin has placed this species in the genus *Ammomanes*, doubtless on account of the uniform plumage and the rufous base to the tail. In structure, however, it is a *Mirafra*, and of the same form as *M. nigricans*.

Hab. N.E. Africa.

α. ♂ ad. sk.

Kordofan.

Old Coll.

14. SPILOCORYDON.

Type.

Spilocorydon, *Reichenow, Orn. Centralbl.* 1879, p. 155. *S. hypermetrus*.

Range. Eastern Africa, northwards to Shoa.

1. *Spilocorydon hypermetrus*.

Spilocorydon hypermetrus, *Reichen. Orn. Centralbl.* 1878, p. 155;

Fischer & Reichen. J. f. O. 1879, p. 354; *Fischer, Zeitschr. ges.*

Orn. 1. p. 318 (1884); *id. J. f. O.* 1885, p. 137; *Salvad. Ann. Mus.*

Genov. (2) vi. p. 206 (1888).

Adult. Upper surface ashy brown, streaked with dusky, the neck paler and tinged with isabelline; throat white; breast varied with white and rufous isabelline, streaked in the centre with dusky brown; a spot of dusky blackish on each side of the neck; abdomen buffy whitish; flanks and under wing-coverts rufous isabelline; quills rufous at the base, brown at the tips: "upper mandible dusky, the lower one paler; feet pale; iris pale brown" (*G. A. Fischer*). Total length 8 inches, wing 4·4, tail 3·2.

A young bird in the Museum seems to belong to this species, which Count Salvadori states to be very similar to *M. africana*. It is impossible to judge from an immature specimen in poor condition, but I cannot see that the genus differs much from *Mirafra*.

Hab. From Shoa to Maaai-Land, and the adjacent parts of Eastern Africa.

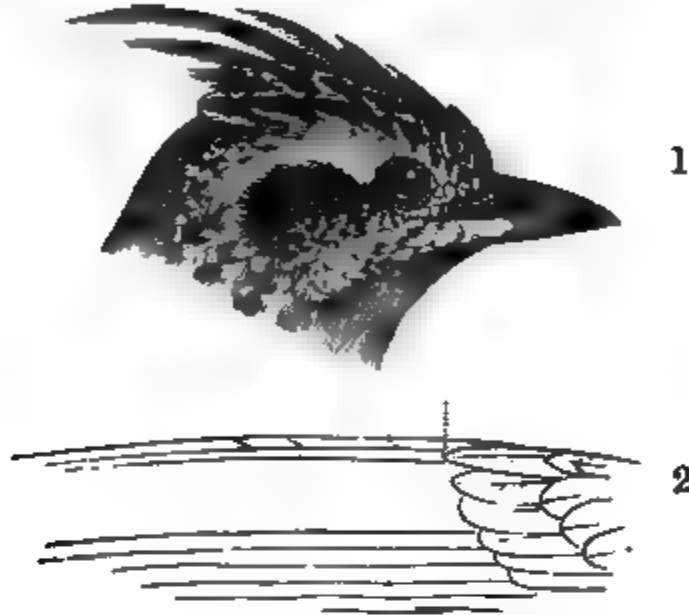
α. Juv. sk.

Shoa (*Sir W. C. Harris*).

India Museum.

15. SPIZALAUDA.

Spizalauda, *Blyth*, *J. A. S. Beng.* xxiv. p. 258 (1855) .. ^{Type.} *S. deva*.



1. Head of *Spizalauda deva*, to show form of crest.
2. Wing of ditto, to show first primary.

Range. Confined to the Indian Peninsula.

1. *Spizalauda deva*.

- Alauda deva*, *Sykes*, *P. Z. S.* 1832, p. 92; *Gray*, *Hand-l. B.* ii. p. 188, no. 7761 (1870).
Mirafra hayi, *Jerd. Madr. Journ.* xiii. pt. 2, p. 136 (1844); *Blyth*, *J. A. S. Beng.* xiii. p. 959 (1844); *Blyth*, *Cat. B. Mus. As. Soc.* p. 133 (1849).
Spizalauda hayi, *Blyth*, *J. A. S. Beng.* xxiv. p. 258 (1855).
Spizalauda deva, *Horsf. & Moore*, *Cat. B. Mus. E.I. Co.* ii. p. 477 (1856); *Jerd. B. Ind.* ii. p. 432 (1863); *Fairb. Str. F.* iv. p. 261 (1876); *Brooks*, *t. c.* p. 278; *Davidson & Wenden*, *Str. F.* vii. p. 86 (1878); *Hume*, *Str. F.* viii. p. 100 (1879); *Butler*, *Cat. B. S. Bomb. Pres.* p. 64 (1880); *Davidson*, *Str. F.* x. p. 314 (1882).
Alauda simillima, *Hume*, *J. A. S. Beng.* xxxix. p. 121 (1870).
Spizalauda simillima, *Hume*, *Nests & Eggs Ind. B.* p. 484 (1873); *id.* *Str. F.* i. p. 389 (1873); *Butler*, *Str. F.* iv. p. 1 (1878).
Spizalauda malabarica (*nec Scop.*), *Hayes Lloyd*, *Ibis*, 1873, p. 414; *Hume*, *Str. F.* i. p. 486, note (1873); *Butler*, *Cat. B. Sind.* p. 50 (1879); *Reid*, *Cat. Lucknow Mus.* p. 138 (1886).
Alauda (*Spizalauda*) *deva*, *Stoliczka*, *J. A. S. Beng.* xli. p. 248 (1872); *Blanf. Str. F.* 1876, p. 240.

Adult male. Mottled above like ordinary Larks, the general colour being sandy rufous, with black centres to the feathers; the lower rump and basal upper tail-coverts vinous isabelline, in strong contrast to the back; longer tail-coverts like the tail; wing-coverts and quills blackish, edged with sandy rufous or isabelline;

tail-feathers dark brown, with rufous markings, the outer tail-feather vinous isabelline, with an oblique blackish mark on the inner web, the penultimate feathers blackish, vinous isabelline on the outer web and round the tip; crown of head with an extraordinarily long crest, the feathers black with sandy-rufous margins; the hind neck and upper mantle sandy rufous, with blackish centres to the feathers; lores, and a broad eyebrow, sides of face, ear-coverts, cheeks, and sides of neck vinous isabelline, the latter mottled with tiny blackish centres to the feathers; the ear-coverts washed with brown, especially along the upper margin; entire under surface of body vinous isabelline, paler on the throat; the fore neck and chest with a few mesial spots of dusky brown; on each side of the fore neck a patch of black; across the cheeks a row of dusky brown spots from the fore part of the eye; under wing-coverts and axillaries like the breast: "bill horny brown above, pale flesh-colour below; legs and feet yellowish brown; iris dark brown" (*E. A. Butler*). Total length 6 inches, culmen 0.5, wing 3.4, tail 2.1, tarsus 0.8.

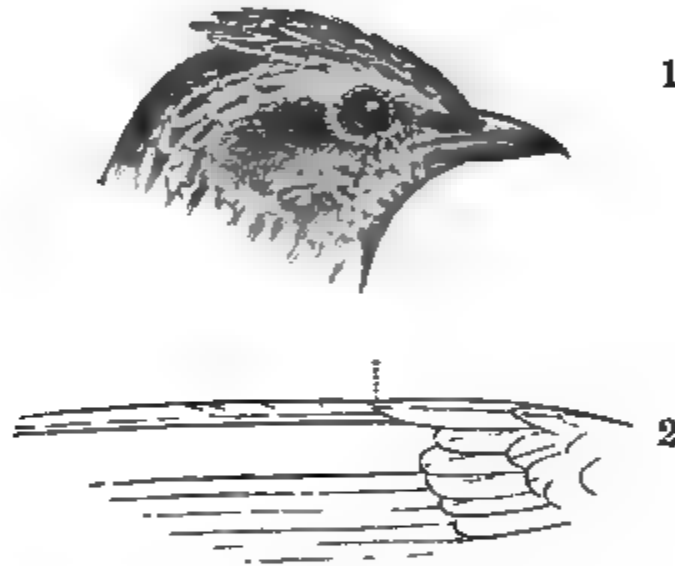
Adult female. Similar to the male in colour: "bill dark brown, the lower mandible and lower edge of the upper one pale flesh-colour; feet pale flesh-colour" (*E. A. Butler*). Total length 5.3 inches, culmen 0.6, wing 3, tail 1.75, tarsus 0.8.

Hab. From Cutch, eastwards to the Etawah district, and south to Mysore and Madras.

| | | |
|--|---|------------------------|
| <i>a-c.</i> Ad. et juv. sk. | Cutch, Jan. | Hume Coll. |
| <i>d.</i> Ad. sk. | Rajkote, Kattiawar, June 21, 1871. | Major Hayes Lloyd [P.] |
| <i>e.</i> ♂ ad. sk. | Deesa, July (<i>E. A. Butler</i>). | Hume Coll. |
| <i>f, g.</i> Ad. sk. | Ahmedabad, Feb., April. | Seebohm Coll. |
| <i>h.</i> ♂ ad. sk. | Oodeypur, Feb. 14, 1878. | Hume Coll. |
| <i>i, k.</i> ♂ ad. sk. | Sambhur, June, July (<i>R. M. Adam</i>). | Hume Coll. |
| <i>l.</i> ♂ ad.; <i>m, n, o.</i> ♀ ad. sk. | Sholapur, April, June, July. | Hume Coll. |
| <i>p.</i> ♀ ad. sk. | Banda, Bundelkund, Dec. (<i>G. F. L. Marshall</i>). | Hume Coll. |
| <i>q.</i> ♀ ad. sk. | N.W. Himalayas. | Pinwill Coll. |
| <i>r, s.</i> ♂ & ♀ ad. sk. | Baham, Etawah, Dec. (<i>B.</i> | Hume Coll. |

| | | |
|-------------------------------------|--|--|
| y'. Ad. sk. | Kondapur, June (S. B. Fairbank). | Hume Coll. |
| z'. ♂; a'', b''. ♀ ad. sk. | Ahmednuggur, July (S. B. Fairbank). | Tweeddale Coll. |
| c'. f'. ♂; g''. ♀ ad. sk. | Belgaum, April, June, July Sept. (E. A. Butler). | Hume Coll. |
| h''-k''. ♂ ad.; l'', m''. ♀ ad. sk. | Mysore, May, Aug. (W. Davison). | Hume Coll. |
| n'', o''. ♂ ♀ ad. sk. | Bangalore, Aug. (R. G. W. R.). | Tweeddale Coll. |
| p'', q''. Ad. sk. | Madras. | T. C. Jerdon, Esq. [P.] |
| r''. Ad. sk. | Madras (Jerdon). | (Types of <i>M. hayi</i>) Gould Coll. |

16. HELIOCORYS.



1. Head of *Heliocorys modesta*, to show form of crest.
2. Wing of ditto, to show first primary.

Range. Confined to Equatorial Africa.

1. *Heliocorys modesta*.

Galerita modesta, Heugl. J. f. O. 1864, p. 274; Shelley, P. Z. S. 1888, p. 28.

Geocoraphus modestus, Heugl. J. f. O. 1868, p. 229; id. Orn. N.O.-Afr. i. pt. 2, p. 691, tab. xxiii. (1871).

Alauda modesta, Gray, Hand-l. B. ii. p. 119, no. 7772 (1870).

Mirafra bucolica, Hartl. Zool. Jahrb. ii. p. 327 (1886); Shelley, P. Z. S. 1888, p. 28.

Mirafra modesta, Hartl. t. c. p. 328.

Adult male. Mottled above like an ordinary Lark, the feathers being sandy buff with black centres; the mantle rather lighter than the rest of the back; the upper tail-coverts rufescent; wing-coverts dusky brown with sandy-buff margins, inclining to ashy whitish on the edges of the median and greater coverts;

primary-coverts and quills dusky brown, with clearer rufous margins, the primaries and inner secondaries more ashy on the edges; tail-feathers blackish brown with ashy-fulvous edges, the outer tail-feather rufescent along its outer margin, except at the tip, a shade of rufous also pervading the inner web; head with a median crest, the feathers like the back, black with edgings of sandy buff; a broad whitish eyebrow extending to the sides of the nape and becoming tinged with vinous buff; lores and feathers below the eye whitish; ear-coverts pale brown, dark brown along the upper edge; cheeks white, with a blackish line across them below the eye; throat ashy white, with a malar line of black; fore neck and chest ashy, thickly mottled with black spots and central streaks, some of which have a lateral tawny shade; sides of body and flanks washed with tawny buff, and narrowly streaked with dark brown; under wing-coverts and axillaries tawny buff, with dusky brown bases to the feathers; quills dusky brown below, rufescent along the inner web: "bill flesh-colour, paler at the base of the lower mandible; feet reddish; iris dusky" (*Emin Pasha*). Total length 5·8 inches, culmen 0·45, wing 3·3, tail 1·85, tarsus 0·8.

Adult female. Similar to the male in colour: "bill blackish horn-colour, the base of the mandible paler; feet fleshy; iris dusky" (*Emin Pasha*). Total length 5·3 inches, culmen 0·5, wing 3·1, tail 1·8, tarsus 0·8.

After examining the series of *Hebiocorys modesta* sent by Emin Pasha, and comparing with it an authenticated specimen of *Mirafra bucolica* of Hartlaub in the Shelley collection from Kuderma (spec. G of Hartlaub's 'Dritter Beitrag'), I have no hesitation in stating that *M. bucolica* is specifically identical with *H. modesta*. The supposed differences in size are, in my opinion, merely due to sex, the male being, as in most Larks, larger than the female; and the differences in plumage are merely due to season. Thus the specimens obtained in November are still in tolerably fresh plumage, in December they are much worn, in February the feathers are very much the worse for wear, and in May they are fresh moulted, and become *M. bucolica* of Hartlaub: they are then much more tawny by reason of the greater breadth of the pale edgings to the feathers. Similarly the black spots on the chest are more concealed in the winter plumage by reason of the pale edges, and are much plainer in the nesting-plumage, when these pale edges get worn off. The species, moreover, is not a true *Mirafra*, having neither the bill, the nostrils, nor the hind claw of that genus, nor do I consider it a true *Galerita*, but it is nearer to the latter genus than to *Mirafra*.

Hab. Equatorial Africa.

| | | |
|-----------------------------|---|------------------|
| a. ♂ ad. sk. | Kuderma, Nov. 14 (<i>Emin Pasha</i>). | Shelley Coll. |
| b. ♀ ad. sk. | Tamaja, Nov. 3 (<i>Emin</i>). | Shelley Coll. |
| c, d, e. ♂; f. ♀
ad. sk. | Redjal, Nov. to Feb. | Emin Pasha [P.]. |
| g. ♂ ad. sk. | Tobbo, May 16. | Emin Pasha [P.]. |

17. GALERITA.

| | |
|---|-----------------------|
| Galerida, <i>Boie, Isis</i> , 1823, p. 321 | Type.
G. cristata. |
| Heterops, <i>Hodgs. in Gray's Zool. Misc.</i> p. 84 (1844) .. | G. cristata. |

Range. Central and Southern Europe, extending to Abyssinia, and to Senegambia and the Niger in West Africa; eastwards to Central Asia, India, and Northern China.

Galerita cristata and its allies.

There are four forms of Crested Lark which are clearly distinguishable by characters: one is the typical *G. cristata*, the desert form *G. isabellina*, and the Western Indian bird, always called *Spizaluula malabarica* by authors, but which I consider to be a true *Galerita*. *G. thecklæ* of Brehm also appears to stand distinct, but all the races of *G. cristata* run more or less one into the other. These four forms may be distinguished as follows:—

Key to the Species.

- a. Centre tail-feathers ashy brown, the light pattern of the outer feather brown or rufescent; flanks streaked with brown or rufous-brown; under wing-coverts rufous isabelline *cristata*, p. 623.
- b. Similar to the foregoing, but with the underparts tinged with yellow; the crest very short; the culmen 0·5–0·6 inch; the breast thickly spotted and the flanks coarsely streaked with black *thecklæ*, p. 633.
- c. Centre tail-feathers blackish, as also the crest-feathers; light pattern of outer tail-feather deep rufous; flanks coarsely streaked with black like the breast; under wing-coverts chestnut-rufous. *malabarica*, p. 633.
- d. Centre tail-feathers sandy rufous like the light pattern of the outer feather; flanks not streaked; under wing-coverts isabelline *isabellina*, p. 635.

Of *G. cristata* there are several races, at first sight somewhat distinct in appearance, but it is impossible to draw an exact line of demarcation between them. First there is the dark form from Northern Europe, the true *G. cristata* of Linnæus, with a dusky outer tail-feather and rather distinctly striped flanks. Then in Southern Europe and the Mediterranean countries generally is a race of *G. cristata*, very similar to the typical bird, but differing in its rufescent outer tail-feather. It has also the striped flanks of the northern bird. The latter, however, must migrate to the south, as I have seen specimens from Egypt and Morocco which are absolutely identical with the northern specimens.

The measurements of the true *G. cristata* are as follows:—Sweden: ♂, wing 4·0–4·1; ♀, 3·8–3·9. Heligoland: ♂, wing 4·1. Görlitz: ♂, wing 4·15. Egypt: ♂, wing 4·0–4·2; ♀, 3·9. Total ♂, wing 4·0–4·2; ♀, 3·8–3·9. Of the rufous-tailed race the

dimensions are as follows:—Seville: ♂, wing 4.1; ♀, 3.8. Tunis: wing 3.7–4.1.

Specimens from Senegambia (*G. senegalensis*) are absolutely identical with Spanish ones, and as nestlings are in the collection it is evident that the rufous-tailed Crested Lark breeds in this part of West Africa. The wing ranges in Senegambian specimens from 3.7 inches to 4.0, but as no sexes are marked on the labels, they are not available for strict comparison. Male birds from Abyssinia measure 4.1 inches in the wing, and the females from 3.9–3.95. These are also identical with the rufous-tailed form, which is also in the Museum from Rhodes (♂, wing 4.1), Asia Minor (♂, 4.15–4.25; ♀, 3.95), the River Volga (wing 4.2), and the Caucasus (wing 4.1–4.4). A female of the same race from Palestine has the wing 3.75 inches, and a male from Cyprus has the wing 4.05, the female 3.8 inches. In Algeria a large-billed form occurs, *G. macrorhyncha* of Tristram, which at first sight appears distinct enough, with a culmen measuring 0.85–0.95 inch in the males, and having the wing 4.4–4.55 inches. Many specimens in the collection, however, approach these large-billed Algerian birds, notably the ones from Palestine (referred to *G. macrorhyncha* by Tristram). The wing is 4.05–4.2 inches in these specimens, and in another specimen from Kaizarieh in Asia Minor the bill is 0.75 inch and the wing 4.4, so that in size this bird nearly approaches *G. macrorhyncha*.

There is in fact a sandy-coloured race of *G. cristata* which extends from Palestine and Asia Minor through Persia to the Indian Peninsula, and in Central Asia it becomes extremely pale and rather larger in size (*G. magna* of Hume). This large race has the wing from about 4.25 to 4.65 inches in the male, and in the female from 4.1 to 4.25 inches; these measurements are approached by many specimens from other eastern localities.

Specimens from Fao measure 3.95 to 4.25 inches in the wing; from Baluchistan males have the wing 4.15–4.5 inches, and the culmen 0.75. Two specimens from Muscat measure 4.2 inches in the wing, and have the culmen 0.8, thus nearly approaching *G. macrorhyncha*.

A series of specimens from Sind and North-western India, all belonging to the sandy-coloured race, yield the following dimensions:

81218:

- p. 796 (1788); *Pall. Zoogr. Rosso-Asiat.* i. p. 523 (1811); *Temm. Man. d'Orn.* i. p. 277 (1820); *Naum. Vög. Deutschl.* iv. tab. 99. fig. 1 (1824); *Roux, Orn. Prov.* pl. 184 (1825); *Werner, Atlas, Granivores*, pl. 3 (1827); *Ménétr. Cat. Rais. Cauc.* p. 38 (1832); *Gould, B. Eur.* iii. pl. 165 (1837); *Crespon, Orn. Gard*, p. 194 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 163 (1840); *Selys-Longch. Faun. Belg.* p. 84 (1842); *Mühle, Beitr. Orn. Griechenl.* p. 35 (1844); *Schl. Rev. Crit.* p. lix (1844); *Gray, Gen. B.* ii. p. 380 (1844); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 108 (1846); *Thomps. B. Irel.* i. p. 235 (1849); *Kjærh. Danm. Fugle, Afb.* xviii. fig. 6 (1852); *Schl. Vög. Nederl.* p. 151 (1854); *Hewits. Eggs Brit. B.* i. p. 178, pl. xlv. fig. 2 (1856); *Sundev. Sv. Fogl.* pl. lxxix. fig. 4 (1856-72); *Linderm. Vög. Griechenl.* p. 47 (1860); *Schl. Dier. Nederl. Vogels*, pl. 17. fig. (1861); *Gray, List Brit. B.* p. 107 (1863); *Wright, Ibis*, 1864, p. 60; *Dawson Rowley, t. c.* p. 224; *Sperling, t. c.* p. 280; *Filippi, Viagg. Pers.* p. 348 (1865); *Wright, Ibis*, 1865, p. 464; *Lilford, Ibis*, 1866, p. 185; *Borggr. Vogelf. Norddeutschl.* p. 69 (1869); *Elwes & Buckley, Ibis*, 1870, p. 195; *Fritsch, Vög. Eur.* tab. 16. fig. 16 (1870); *Gray, Hand-l. B.* ii. p. 118, no. 7762 (1870); *Shelley, Ibis*, 1871, p. 139; *Taylor, Ibis*, 1872, p. 230; *Harting, Handb. Brit. B.* p. 110 (1872); *Keulem. Onze Vög.* ii. pl. 35 (1873); *Severtz. Turkest. Jevotn.* p. 67 (1873); *Newton, ed. Yarr. Brit. B.* i. p. 632 (1874); *Danf. & Harvie Brown, Ibis*, 1875, p. 311; *Fallon, Ois. Belg.* p. 78 (1875); *Danford, Ibis*, 1878, p. 21, 1880, p. 95; *Elwes, t. c.* p. 393; *Seeb. Ibis*, 1882, p. 217; *B. O. U. List Brit. B.* p. 71 (1883); *Seeb. Ibis*, 1883, p. 11; *id. Hist. Brit. B.* ii. p. 261 (1884); *Tristr. Faun. & Flor. Palest.* p. 78 (1884); *Eagle Clarke, Ibis*, 1884, p. 144; *Saunders, t. c.* p. 377; *Reid, Ibis*, 1885, p. 246; *Yerbury, Ibis*, 1886, p. 18; *Backhouse, Ibis*, 1887, p. 72; *Tait, t. c.* p. 197; *Scully, J. A. S. Beng.* lvi. p. 84 (1887); *Lilford, Ibis*, 1889, p. 324; *Eagle Clarke, t. c.* p. 546.
- La Coquillarde, Daubent. Pl. Enl.* v. pl. 662; *Month. Hist. Nat. Ois.* v. p. 77 (1778).
- Le Cochevis, Daubent. Pl. Enl.* v. pl. 503. fig. 1; *Month. Hist. Nat. Ois.* v. p. 66, pl. 5 (1778).
- Le Cochevis de Sénégal, Daubent. Pl. Enl.* v. pl. 504.
- La Grisette, Month. t. c.* p. 79 (1778).
- Alauda senegalensis, P. L. S. Müll. S. N. Suppl.* p. 137; *Bodd. Tabl. Pl. Enl.* p. 29 (1783); *Gm. Syst. Nat.* i. p. 797 (1788); *Hartl. B. West-Afr.* p. 153 (1857); *Cass. Pr. Phil. Acad.* 1864, p. 249; *Gray, Hand-l. B.* ii. p. 119, no. 7766 (1870).
- Alauda cochevis, P. L. S. Müll. S. N. Suppl.* p. 136 (1776); *Cass. Pr. Phil. Acad.* 1864, p. 248.
- Alauda matutina, Bodd. Tabl. Pl. Enl.* p. 40 (1783).
- Undated Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 391 (1783).
- Senegal Lark, *Lath. t. c.* p. 392 (1783).
- Alauda undata, Gm. Syst. Nat.* i. p. 797 (1788).
- Galerita* * *cristata, Boie, Isis*, 1828, p. 321; *Bp. Consp.* i. p. 245 (1850); *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 293 (1859); *Salvin, Ibis*, 1859, p. 314; *Tristr. t. c.* p. 425; *Pomys, Ibis*, 1860, p. 320; *Irby, Ibis*, 1861, p. 231; *Jerd. B. Ind.* ii. p. 436 (1863); *Drake, Ibis*, 1867, p. 427; *Degl. et Gerbe, Orn. Eur.* i. p. 357

* Often written *Galerida* by mistake.

- (1867); *Loche, Expl. Sci. Algér., Ois.* ii. p. 38 (1867); *Beaman, Ibis*, 1868, p. 161; *Smith, t. c.* p. 444; *Doderl. Avif. Sicil.* p. 92 (1869); *Droste, Vogelw. Bork.* p. 107 (1869); *Salvad. Faun. Ital. Ucc.* p. 132 (1871); *Saunders, Ibis*, 1871, p. 217; *Swinh. P. Z. S.* 1871, p. 300; *Shelley, B. Egypt*, p. 138 (1872); *Gould, B. Gt. Br.* iii. pl. 17 (1873); *Dresser, B. Eur.* iv. p. 285, pl. 229 (1873); *Hume, Nests & Eggs Ind. B.* p. 488 (1873); *id. Str. F.* 1873, p. 214; *Adam, t. c.* p. 320; *Swinh. Ibis*, 1875, p. 123; *Irby, B. Gibr.* p. 112 (1875); *Dresser, Ibis*, 1876, p. 182; *Butler, Str. F.* 1876, p. 2; *Blanf. East. Pers.* ii. p. 240 (1876); *David & Oud. Ois. China*, p. 317 (1877); *Tacz. Bull. Soc. Zool. France*, ii. p. 145 (1877); *Butler, Str. F.* v. p. 185 (1877); *Ball, t. c.* p. 223; *Hume, Str. F.* vii. p. 60 (1878); *id. Str. F.* viii. p. 109 (1879); *Scully, t. c.* p. 338; *Doig, t. c.* p. 371; *Bogd. B. Cauc.* p. 73 (1879); *Butler, Cat. B. Sind &c.* p. 50 (1879); *Hartl. P. Z. S.* 1881, p. 950; *Gigl. Iconogr. Avif. Ital.* pl. 181; *Radde, Orn. Cauc.* p. 209 (1884); *Murray, Vertebr. Faun. Sind*, p. 198 (1884); *Salvad. Elenc. Ucc. Ital.* p. 154 (1886); *Gigl. Avif. Ital.* p. 68 (1886); *Reid, Cat. B. Lucknow Mus.* p. 139 (1886); *Hartert, J. f. O.* 1886, p. 582; *Lilford, Ibis*, 1886, p. 380; *Sharpe, t. c.* pp. 165, 487; *Kernig, J. f. O.* 1888, p. 218; *Irby, Key List Brit. B.* p. 20 (1888); *Gigl. Avif. Ital. 1st Resoc.* p. 127 (1889).
- Alauda galorita*, *Pall. Zoogr. Rosso-Asiat.* i. p. 524 (1811).
- Alauda chendoola*, *Frankl. P. Z. S.* 1831, p. 119; *Gray, Hand-l. B.* ii. p. 118, no. 7763 (1870).
- Galerida viarum*, *Brehm, Vög. Deutschl.* p. 315 (1831).
- Galerida undata*, *Brehm, t. c.* p. 316 (1831).
- Alauda gulgula* (nec *Frankl.*), *Sykes, P. Z. S.* 1832, p. 92.
- Certhilauda chendoola*, *Blyth, J. A. S. Beng.* xiii. p. 902 (1844), xv. p. 41 (1846); *Hutton, op. cit.* xvi. p. 780 (1847).
- Certhilauda boysii*, *Blyth, J. A. S. Beng.* xv. p. 41 (1840).
- Heterops cristatus*, *Hodge, Icon. ined. in Brit. Mus., Passeres*, pl. 205, figs. 1, 2 (no. 720); *id. in Gray's Zool. Misc.* p. 84 (1844).
- Galerida chendoola*, *Blyth, Cat. B. Mus. As. Soc.* p. 133 (1840); *Bp. Consp.* i. p. 245 (1850).
- Galerida boysii*, *Blyth, t. c.* p. 133 (1840); *Bp. Consp.* i. p. 245 (1850); *Blyth, Ibis*, 1867, p. 48.
- Galerita senegalensis*, *Bp. Consp.* i. p. 245 (1850).
- Galerida nigricans* etc., *Brehm, Vogelf.* pp. 123-125 (1855).
- Galerita cristata nigricans* etc., *Brehm, Naum.* 1858, pp. 206-209.
- Galerita randeni*, *Loche, Cat. Mamm. etc. Alger* p. 85 (1858); *id. Proc. M. Z. S.* 1860, p. 172, pl. 1, fig. 2.

Alauda (*Galerita*) *cristata*, *Blanf. Geol. & Zool. Alyss.* p. 387 (1870).
Mirafra arenicola, *Gray, Hand-l. B.* ii. p. 122, no. 7814 (1870).

Galerida magna, *Hume, Ibis*, 1871, p. 407; *Hume & Henders. Lahore to Yark.* p. 270, pl. 30 (1873); *Severtz. Str. F.* iii. p. 424 (1875); *Scully, Str. F.* iv. p. 175 (1876); *Menzbier, Ibis*, 1885, p. 354.

Galerita microcristata, *Homeyer, J. f. O.* 1873, p. 202.

Galerita parvicristata (*nom. emend.*), *Sharpe, Zool. Rec.* 1873, p. 64.

Alauda magna (*nec Hume*), *Dixon, Ibis*, 1882, p. 571.

Alauda cristata, var. *macrorhyncha*, *Seebohm, Hist. Brit. B.* ii. p. 262 (1884).

Alauda cristata, var. *magna*, *Seebohm, t. c.* p. 262 (1884).

Alauda isabellina (*nec Bp.*), *Tristr. Faun. & Flor. Palest.* p. 78 (1884).

Alauda cristata, var. *leautungensis*, *Seebohm, Hist. Brit. B.* ii. p. 262 (1884).

Galerita cristata caucasica, *Tacz. P. Z. S.* 1887, p. 603, 1888, p. 464.

Galerita cristata coreensis, *Tacz. Bull. Soc. Zool. France*, 1887, p. 620.

Adult male in winter plumage. General colour above brown, with blackish centres to the feathers, the back not so strongly mottled as in the generality of Larks; lower back and rump rather more uniform and more ashy than the back; the lower rump and upper tail-coverts rather more vinaceous; wing-coverts like the back, the median and greater coverts dark brown, edged with ashy brown; bastard-wing, primary-coverts, and quills brown, externally washed with pale rufous, the innermost secondaries with ashy; tail-feathers brown with ashy margins, the penultimate feather sandy buff along the outer web; the outer feather pale brown, externally sandy buff, and obliquely darker brown on the inner web; crown of head like the back, slightly tinged with vinaceous, and streaked with darker brown; a long median crest of narrow plumes; lores, an indistinct eyebrow, and feathers round the eye buffy white; sides of face and ear-coverts brown, the latter shaded with darker brown, with a whitish patch just below the eye; cheeks and throat whitish, with some blackish spots on the former; sides of neck pale brown; remainder of under surface of body isabelline whitish, browner on the fore neck and breast, the chest thickly spotted with black, taking more the form of streaks on the sides of the breast, as well as on the sides of the body and flanks; thighs and under tail-coverts isabelline, the latter with dusky centres; under wing-coverts and axillaries clear vinous isabelline; quills below dusky, rufescent along the inner edge: "bill greyish brown, the lower mandible lighter and more dusky; feet dusky yellowish flesh-colour; iris light brown" (*J. O. Naumann*). Total length 7 inches, culmen 0·7, wing 4·25, tail 2·7, tarsus 0·9.

Adult female. Similar to the male, but smaller. Total length 6·5 inches, culmen 0·7, wing 3·8, tail 2·4, tarsus 0·95.

Hab. The same as that of the genus.

α. G. cristata.

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|--|---------------------------------|--------------------------|
| <i>a, b.</i> ♂ ♀ ad. sk. | Malmö, S. Sweden, Jan., Oct. 5. | W. Meres [C.]. |
| <i>c, d.</i> ♂; <i>e.</i> ♀ ad. sk. | Malmö, Dec., March (W. Meres). | R. B. Sharpe, Esq. [P.]. |
| <i>f.</i> ♂ ad. sk. | Heligoland, May. | Seebohm Coll. |
| <i>g.</i> ♂ ad. sk. | Görlitz, Saxony, March 13. | Salvin-Godman Coll. |
| <i>h, i.</i> ♂ ♀ ad. sk. | Westphalia. | Seebohm Coll. |
| <i>k.</i> Ad. sk. | Belgium, Dec. 12. | Brussels Museum [P.]. |
| <i>l-o.</i> ♂ ad.; <i>p.</i> ♀ ad. sk. | Egypt, March, May (G. E. S.). | Shelley Coll. |
| <i>q, r.</i> Ad. et juv. sk. | Egypt. | J. H. Gurney, Esq. [P.]. |

β. Rufous-tailed race (G. senegalensis).

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|---|----------------------------------|----------------------------|
| <i>a, b.</i> ♂ ♀ ad. sk. | Seville, Spain, April 17 (Ruiz). | Seebohm Coll. |
| <i>c.</i> Ad. sk. | Granada (H. Saunders). | Tweeddale Coll. |
| <i>d.</i> ♀ ad. sk. | Malaga, Jan. 2 (H. S.). | Tweeddale Coll. |
| <i>e.</i> Ad. sk. | Gibraltar. | Col. Irby [P.]. |
| <i>f.</i> Ad. sk. | Coimbra, Portugal, Dec. | Dr. L. Vieira [P.]. |
| <i>g.</i> ♂ ad. sk. | Tangiere, March 23 (G. E. S.). | Shelley Coll. |
| <i>h.</i> Ad. sk. | Tangiers (Favier). | Gould Coll. |
| <i>i, k.</i> Ad. sk. | Algeria (O. S.). | Salvin-Godman Coll. |
| <i>l.</i> Ad. sk. | Sicily (E. W. Oates). | Seebohm Coll. |
| <i>m, n, o.</i> Ad.; <i>p,</i> <i>q.</i> Juv. sk. | River Gambia. | Sharpe Coll. |
| <i>r, s.</i> Ad. sk. | Senegal. | L. Laglaize [C.]. |
| <i>t.</i> Ad. sk. | River Gambia (Sir A. Moloney). | Shelley Coll. |
| <i>u.</i> Juv. sk. | Sierra Leone. | Sir E. Sabine [P.]. |
| <i>v.</i> Ad. sk. | Abyssinia. | M. Verreaux. |
| <i>w.</i> Ad. sk. | Abyssinia. | Sharpe Coll. |
| <i>x.</i> ♀ ad. sk. | Massowa, Aug. 25. | W. T. Blanford, Esq. [P.]. |
| <i>y.</i> ♀ ad. sk. | Massowa (W. Jesse). | Sharpe Coll. |
| <i>z.</i> ♂ ad. sk. | Zoulla, Dec. 26. | W. T. Blanford, Esq. [P.]. |
| <i>a', b'.</i> Ad. sk. | Amba, Bogos Land (W. Jesse). | |
| <i>c', d'.</i> ♂ ♀ ad. sk. | Larnaca, Cyprus, April 17. | Lord Lilford [P.]. |
| <i>e'.</i> ♂ ad. sk. | Rhodes, Dec. 3 (C. G. Dan- | Seebohm Coll. |

δ. Sandy-coloured race.

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| <i>a.</i> ♂ ad. sk. | Kaizarieh, Asia Minor, May 6
(<i>C. G. Danford</i>). | Seebohm Coll. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Palestine. | Canon Tristram [C.]. |
| <i>d', e'.</i> Ad. sk. | Aden. | P. L. Sclater, Esq.
[P.]. |
| <i>f'.</i> Ad. sk. | Sheik Othman, near Aden,
March 28. | Colonel Yerbury [P.]. |
| <i>d.</i> ♀ ad. sk. | Mashish, S. Persia, May 21. | W. T. Blanford, Esq.
[C.]. |
| <i>e.</i> ♂ ad. sk. | Bam, S.E. Persia, April 22. | W. T. Blanford, Esq.
[C.]. |
| <i>f, g.</i> ♂ ♀ ad.;
<i>h-l.</i> Ad. sk. | Fao, Turkish Arabia, Aug., Nov. | W. D. Cumming,
Esq. [P.]. |
| <i>m, n.</i> Ad. sk. | Muscat. | Colonel Miles [P.]. |
| <i>o.</i> ♂ ad. sk. | Gwadar, Mekran Coast, Feb. 18
(<i>A. O. H.</i>). | Hume Coll. |
| <i>p.</i> ♂ ad. sk. | Gwadar, Dec. | W. T. Blanford, Esq.
[C.]. |
| <i>q.</i> ♂ ad. sk. | Dizak, Baluchistan, March 21. | W. T. Blanford, Esq.
[C.]. |
| <i>r, s.</i> ♂ ad. sk. | Gulran, N. Afghanistan, March. | Dr. Aitchison [P.]. |
| <i>t.</i> ♀ ad. sk. | Tirphul, April 6. | Dr. Aitchison [P.]. |
| <i>u.</i> ♂ ad.; <i>v-x.</i>
♀ ad. sk. | Kandahar, Dec., Feb. | Col. Swinhoe [P.]. |
| <i>y, z.</i> ♂ ad. sk. | Melkarez, April, May. | Col. Swinhoe [P.]. |
| <i>a'-e'.</i> Ad. sk. | Pushut (<i>Dr. Griffith</i>). | India Mus. |
| <i>f', g'.</i> ♂ ad. et
juv. sk. | Chaman, Aug. (<i>Sir O. St. John</i>). | Hume Coll. |
| <i>h', i', k'.</i> ♂ ad.;
<i>l.</i> ♀ ad.; <i>m'.</i>
Juv. sk. | Nal, Khelat, May 7 (<i>O. T.</i>
<i>Duke</i>). | Hume Coll. |
| <i>n'.</i> Ad. sk. | Zehree, Khelat, June (<i>O. T. D.</i>). | Hume Coll. |
| <i>o'.</i> ♀ ad. sk. | Quetta, Dec. 3 (<i>Sir O. St.</i>
<i>John</i>). | Hume Coll. |
| <i>p'.</i> Ad. sk. | Pishin Valley, Dec. 18 (<i>Sir O.</i>
<i>St. John</i>). | Hume Coll. |
| <i>q'.</i> Ad. sk. | Khelat-i-Ghilzai, Oct. (<i>Sir O.</i>
<i>St. John</i>). | Hume Coll. |
| <i>r'.</i> ♂ ad. sk. | Samarcand (<i>Russow</i>). | St. Petersburg Mus.
[E.]. |
| <i>s', t'.</i> ♂ ♀ ad. sk. | Karachi, Sind, Oct. (<i>F. Day</i>). | Hume Coll. |
| <i>u'.</i> ♂ ad.; <i>v',</i>
<i>w', x'.</i> ♀ ad.
sk. | Karachi, March, May (<i>E. A.</i>
<i>Butler</i>). | Hume Coll. |
| <i>y'.</i> Pull. sk. | Eastern Narra, March 28 (<i>S.</i>
<i>Doig</i>). | Hume Coll. |
| <i>a''.</i> ♂ ad. sk. | Mooltan, Jan. 20. | Seebohm Coll. |
| <i>b'', c''.</i> ♂ ♀ ad.
sk. | Sukkur, Dec. 28 (<i>A. O. H.</i>). | Hume Coll. |
| <i>d''.</i> ♂; <i>e'', f''.</i>
♀ ad. sk. | Banks of Chenab, Dec. 7 (<i>A.</i>
<i>O. H.</i>). | Hume Coll. |
| <i>g'', h''.</i> ♀ ad. sk. | Mithenkote, Dec. 10 (<i>A. O. H.</i>). | Hume Coll. |
| <i>i'', k''.</i> ♂; <i>l'.</i> ♀
ad. sk. | Hussin-ki-gushi, N. Sind, Dec.
18 (<i>A. O. H.</i>). | Hume Coll. |

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| m'' , n'' . ♂ ♀ ad. sk. | Sehwan, Jan. (<i>A. O. H.</i>) | Hume Coll. |
| o'' , p'' . ♂ ad. sk. | Jodhpur, Feb. (<i>A. O. H.</i>) | Hume Coll. |
| q'' - x'' . ♂; y'' ,
z'' . ♀ ad.; a'' .
Juv. sk. | Sambhur, Jan., Feb., April,
June, July, Dec. (<i>R. M.</i>
<i>Adam</i>). | Hume Coll. |
| b'' . Ad. sk. | Loodiana, April (<i>A. O. H.</i>) | Hume Coll. |
| c'' . Ad. sk. | Lahore. | C. Bygrave Wharton
Esq. [P.] |
| d'' , e'' . Ad. sk. | Lahore. | Tweeddale Coll. |
| f'' . Ad. sk. | Lahore. | Gould Coll. |
| g'' - r'' . Ad. sk. | Sirsa District, Dec., Jan. | Hume Coll. |
| s'' . Ad. sk. | Murdan, Dec. | Hume Coll. |
| t'' . Ad. sk. | Peshawur, May 1. | Hume Coll. |
| u'' . Ad. sk. | Peshawur, Jan. 20. | Colonel Way [P.] |
| v'' , w'' . ♀ ad. sk. | Gilgit, March. | Col. Biddulph [C.] |
| x'' , y'' . ♂; z'' - b'' .
♀ ad. sk. | Umbala, Nov. (<i>R. C. Beavan</i>). | Tweeddale Coll. |
| c'' - e'' . ♂ ad. sk. | Saharunpur, Nov., March (<i>G.</i>
<i>F. L. Marshall</i>). | Hume Coll. |
| f'' . ♀ ad. sk. | Saharunpur, Jan. 31. | Seeborn Coll. |
| g'' . ♀ ad. sk. | Muttra, Dec. 8 (<i>G. F. L. Mar-</i>
<i>shall</i>). | Major Bingham [P.] |
| h'' . ♀ ad. sk. | Alighur, Nov. 30 (<i>R. Ander-</i>
<i>son</i>). | Hume Coll. |
| i'' , k'' . Ad. sk. | Masuri. | Hume Coll. |
| l'' . ♀ ad. sk. | Dehra, Dec. 27 (<i>G. King</i>). | Hume Coll. |
| m'' - o'' . ♂ ad.;
p'' . ♀ ad. sk. | Gurgaon District, Feb., Sept.
(<i>W. N. Chill</i>). | Hume Coll. |
| q'' , r'' . ♂ ad. sk. | Delhi, Feb. (<i>C. T. Bingham</i>). | Hume Coll. |
| s'' , t'' . Ad. sk. | N.W. Provinces. | Pinwill Coll. |
| u'' . ♀ ad. sk. | Futtehgurh, April 6 (<i>A. Ander-</i>
<i>son</i>). | Seeborn Coll. |
| v'' - x'' . ♂; y'' - b'' .
♀; c'' - n'' . Ad. sk. | Etawah, Jan., March to May,
July, Nov., Dec. (<i>A. O. H.</i>
& <i>W. E. B.</i>). | Hume Coll. |
| o'' , p'' . ♂ ad. sk. | Cawnpore, May, Nov. (<i>W. E.</i>
<i>Brooks</i>). | Hume Coll. |
| q'' . Ad. sk. | Lucknow, May. | Colonel Way [P.] |
| r'' - t'' . Ad. sk. | Oudh, Jan., Dec. (<i>A. Ander-</i>
<i>son</i>). | Hume Coll. |
| u'' . Ad. sk. | Nepal. | Hodgson Coll. |

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| e. ♀ ad. sk. | Tashkend, Nov. 21. | Severtzoff Coll. |
| f. ♂ ad. sk. | Nija, E. Turkestan (<i>Prjewalski</i>). | Seebohm Coll. |
| g. Ad. sk. | Charwagh, Aug. | Rev. Dr. Lansdell. |
| h. Ad. sk. | Alashan, Jan. (<i>Prjewalski</i>). | Seebohm Coll. |
| i, k. ♂ ad. sk. | Lobnoor, Feb., Dec. (<i>Prjewalski</i>). | Seebohm Coll. |
| l, m, n. Ad.; o. Juv. sk. | Chadir-kul, Aug. | Rev. Dr. Lansdell [C.]. |
| p, q. Ad. sk. | Guma, Sept. | Rev. Dr. Lansdell [C.]. |
| r, s. ♀ ad. sk. | Yarkand, Feb., March (<i>J. Scully</i>). | Hume Coll. |
| t, u, v. ♂ ad. sk. | Yarkand, Aug. (<i>Dr. Hender-son</i>). | Hume Coll. |
| w. Ad. sk. | Karghalik, Aug. 20 (<i>G. Hender-son</i>). | (Types of <i>G. magna</i> .)
Hume Coll. |
| x. ♀ ad. sk. | Sanju, Yarkand, Oct. 28 (<i>J. Biddulph</i>). | Seebohm Coll. |
| y, z. ♂ ♀ ad. sk. | Kashgar, Oct. 23 (<i>J. S. & J. B.</i>). | Hume Coll. |
| a'-f'. Ad. sk. | Kashgar (<i>Dr. Bellew</i>). | India Mus. |
| g', h'. ♂ ♀ ad. sk. | Hyderabad, Oct. (<i>E. A. Butler</i>). | Hume Coll. |
| i'. ♂ ad. sk. | Jacobabad, Dec. (<i>A. O. H.</i>). | Hume Coll. |

2. *Galerita thecklæ*.

Galerita thecklæ, *Brehm, Naum.* 1858, p. 210; *Homeyer, Erinn. Vers. deutschl. Orn.* 1870, p. 47.

Galerida miramaræ, *Homeyer, J. f. O.* 1882, p. 315.

Adult. Similar to *G. cristata*, but much smaller, and having the appearance of a Wood-Lark, with a yellow tinge pervading the under surface of the body. The breast-spots and flank-stripes are very numerous, the outer tail-feather has the light pattern very rufous, and the race is easily distinguished by its very short bill. Total length 5·5 inches, culmen 0·55, wing 3·9, tail 2·15, tarsus 0·95.

Hab. Southern Spain and North-eastern Africa.

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|--------------|----------------------------------|--------------------------|
| a. Ad. sk. | Tangiers. | Gould Coll. |
| b. Ad. sk. | Tangiers (<i>Olcese</i>). | Tweeddale Coll. |
| c. Ad. sk. | Tangiers (<i>Olcese</i>). | R. B. Sharpe, Esq. [P.]. |
| d. ♂ ad. sk. | Tunis, Feb. 21 (<i>O. S.</i>). | Salvin-Godman Coll. |

3. *Galerita malabarica*.

Alouette huppée de la Côte de Malabar, *Sonn. Voy. Indes*, ii. p. 203, pl. 113. fig. 1 (1782).

Alauda malabarica, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94 (1786); *Gm. S. N.* i. p. 795 (1788).

Malabar Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 379 (1783).

Alauda deva (*nec Sykes*), *Jerd. Madr. Journ.* xi. p. 31 (1840).

- Alauda malabarica* (*nec Scop.*), *Jerd. B. Ind.* ii. p. 436 (1863); *Blanf. J. A. S. Beng.* xxxviii. pt. 2, p. 183 (1869); *Gray, Hand-l. B.* ii. p. 117, no. 7748 (1870); *Brooks, Str. F.* 1873, p. 486.
Spizalauda deva (*nec Sykes*), *Hume, J. A. S. Beng.* xxxix. pt. 2, p. 119 (1870).
Spizalauda malabarica (*nec Scop.*), *Hume, Str. F.* i. p. 486, note (1873); *Fairb. Str. F.* iii. p. 261 (1875); *Butler, Cat. B. S. Bomb. Pres.* p. 64 (1880); *Hume, Str. F.* viii. p. 109 (1879); *Vidal, Str. F.* ix. p. 73 (1880); *Davidson, Str. F.* x. p. 404 (1883).
Alauda (*Spizalauda*) *malabarica*, *Blanford, Str. F.* iv. p. 241 (1876).
Galerita cristata (*nec L.*), *Davidson & Wenden, Str. F.* vii. p. 86 (1878).

Adult male. Similar to *G. cristata*, but very much darker and more rufescent, especially rufous below; the breast very strongly spotted with black; the flanks without blackish streaks; light pattern of outer tail-feather very rufous; under wing-coverts and quill-lining ashy rufous: "bill horny brown above, whitish flesh-colour below; legs and feet whitish flesh-colour; iris dark brown" (*E. A. Butler*). Total length 6·3 inches, culmen 0·6, wing 3·8, tail 2·3, tarsus 0·9.

Adult female. Similar to the male in colour. Soft parts as in the male. Total length 6·3 inches, culmen 0·65, wing 3·7, tail 2·1, tarsus 0·9.

In a series of specimens the males have the wing from 3·7 to 3·95 inches, and the females from 3·55 to 3·7.

Hab. Southern India from Travancore and the Nilghiris, as far north as the neighbourhood of Ahmedabad.

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| <i>a, b.</i> ♂; <i>c.</i> ♀ ad. sk. | Ahmedabad, March. | Hume Coll. |
| <i>d, e.</i> ♂ ♀ ad. sk. | Mahabaleshwar, Feb.,
March (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>f, g, h.</i> ♂; <i>i-m.</i> ♀ ad. sk. | Mahabaleshwar, March-
May (<i>S. B. Fairbank</i>). | Hume Coll. |
| <i>n.</i> ♂ ad. sk. | Khandala, Oct. | Hume Coll. |
| <i>o, p.</i> ♂; <i>q.</i> ♀ ad. sk. | Khandala Top, April, May
(<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>r.</i> ♀ ad. sk. | Goa Hills, April (<i>S. B. F.</i>). | Tweeddale Coll. |
| <i>s.</i> Ad sk. | Deccan (<i>Sykes</i>). | India Museum. |

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|---|---------------------------|--------------------------|
| <i>w'</i> . Juv. sk. | Coonoor, Dec. 1880. | A. Macgregor, Esq. [P.]. |
| <i>x'</i> , <i>y'</i> . Ad. sk. | Malabar. | Tweeddale Coll. |
| <i>z'</i> , <i>a''</i> , <i>b''</i> . Ad. sk. | Anjango, Travancore, Dec. | Hume Coll. |

4. *Galerita isabellina**.

Galerida abyssinica, *Bp. Consp.* i. p. 245 (1850); *Brehm, Naum.* 1858, p. 209; *Tristr. Ibis*, 1859, p. 425; *Gurney, Ibis*, 1871, p. 290.

Galerida isabellina, *Bp. Consp.* i. p. 245 (1850); *Tristr. Ibis*, 1859, p. 425; *Adams, Ibis*, 1864, p. 24; *Loche, Expl. Sci. Algér., Ois.* ii. p. 40 (1867); *Tacz. J. f. O.* 1870, p. 43; *Heugl. Orn. N.O.-Afr.* iv. App. p. cxlix (1871); *Dresser, B. Eur.* iv. p. 303, pl. 230. fig. 1 (1873); *Kœnig, J. f. O.* 1888, p. 219.

Galerita flava, *Brehm, J. f. O.* 1854, p. 77; *id. Naum.* 1858, p. 209; *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 682 (1870), iv. App. p. cl (1871); *Homeyer, J. f. O.* 1873, p. 204.

Galerita lutea, *Brehm, Naum.* 1858, p. 210.

Galerita arenicola, *Tristr. Ibis*, 1859, pp. 58, 426; *Wyatt, Ibis*, 1870, p. 15.

Alauda abyssinica, *Gray, Hand-l. B.* ii. p. 118, no. 7765 (1870).

Alauda isabellina, *Gray, t. c.* p. 119, no. 7767 (1870).

Alauda cristata, var. *isabellina*, *Seebohm, Hist. Br. B.* ii. p. 262 (1884).

Adult. Similar to *G. cristata*, but entirely rufous isabelline above with faintly indicated darker centres to the feathers, the crest-feathers darker; upper tail-coverts and centre tail-feathers sandy rufous, as also the outer webs of the others, the outermost feather rufous, with an oblique dusky mark on the inner web; under surface of body white, purer on the breast and abdomen, with numerous streaks and spots of dusky brown on the fore neck and chest: "bill brownish above and yellowish below; feet yellowish; iris reddish" (*Loche*). Total length 7·8 inches, culmen 0·8, wing 4, tail 2·55, tarsus 1.

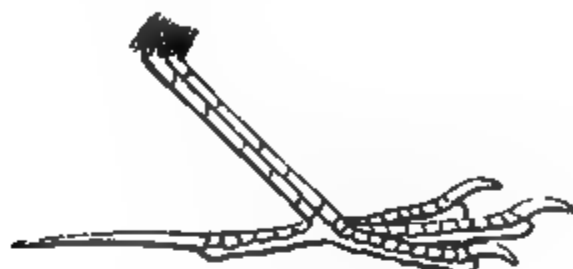
Hab. The desert portions of North-east Africa, ranging across to Abyssinia.

| | | |
|-------------------------|-------------------------------|----------------------------|
| <i>a.</i> Ad. sk. | Biskra, Algeria. | Sharpe Coll. |
| <i>b.</i> ♂ ad. sk. | Tani, Soudan, April. | Capt. W. Verner [P.]. |
| <i>c.</i> ♀ ad. sk. | Abyssinia. | Purchased. |
| <i>d, e, f.</i> Ad. sk. | Abyssinia. | Sharpe Coll. |
| <i>g.</i> Var. sk. | Zoulla, Annesley Bay, Feb. 9. | W. T. Blanford, Esq. [P.]. |
| <i>h.</i> Ad. sk. | Fazogloa. | Edward Wilson, Esq. [P.]. |

* I believe *G. abyssinica* and *G. isabellina* of Bonaparte's 'Conspectus' (p. 245) to be the same bird. Of the two names published on the same page I prefer that of *isabellina*, as *abyssinica* might infer that it is strictly Abyssinian, which is not the case.

18. LULLULA.

| | Type. |
|--|---------------------|
| <i>Lullula</i> , Kaup, <i>Natürl. Syst.</i> p. 92 (1829)..... | <i>L. arborea</i> . |
| <i>Corys</i> , Reichenb. <i>Syst. Av.</i> Taf. 74. fig. 8 (1850) | <i>L. arborea</i> . |

Foot of *Lullula arborea*, to show hind claw.

Range. Europe generally, not extending very far north, and ranging eastwards into Persia.

1. *Lullula arborea*.

La Petite Alouette hupée, Briss. *Orn.* iii. p. 301 (1760).
Alauda arborea, Linn. *Syst. Nat.* i. p. 287 (1766); Temm. *Man. d'Orn.* i. p. 282 (1820); Naum. *Vög. Deutschl.* iv. Taf. 100. fig. 2 (1824); Werner, *Atlas, Granivores*, pl. 6 (1827); Ménière. *Cat. Rais. Cauc.* p. 39 (1832); Gould, *B. Eur.* iii. pl. 167 (1837); Macgill. *Br. B.* ii. p. 174 (1839); Crespon, *Orn. Gard.* p. 103 (1840); Nordm. in *Démid. Voy. Russ. Mérid.* iii. p. 164 (1840); Selys-Longch. *Faun. Belg.* p. 84 (1842); Yarr. *Brit. B.* i. p. 417 (1843); Mühl. *Beitr. Orn. Griechenl.* p. 35 (1844); Schl. *Rev. Crit.* p. lix (1844); Gray, *Gen. B.* ii. p. 380 (1844); Thomps. *B. Irel.* i. p. 236 (1849); Bp. *Consp. Av.* i. p. 245 (1850); Kjaerb. *Orn. Dan.* Afb. xviii. fig. 4 (1852); Schl. *Vog. Nederl.* pl. 149 (1854); Heicits. *Eggs Br. B.* i. p. 179, pl. xl. fig. 3 (1856); Sundev. *Svensk. Fögl.* pl. viii. fig. 2 (1856-72); Joub. & Barth-Lapomm. *Rich. Orn.* p. 291 (1859); Linderm. *Vog. Griechenl.* p. 48 (1860); Powys, *Ibis*, 1860, p. 220; Schl. *Dier. Nederl. Vog.* pl. 17. fig. 11 (1861); Gray, *List. Br. B.* p. 106 (1863); Wright, *Ibis*, 1864, p. 60; Belloni, *Ucc. nidif. Lomb.* pl. 61 (1865-70); Mass. *Illus.* 1865, p. 141; Linn. *Illus.* 1865, p. 287; Linn. *Illus.* 1865, p. 287.

- 1878, p. 21; *Seebohm, Ibis*, 1881, p. 217; *Dixon, Ibis*, 1882, p. 571; *Seebohm, Ibis*, 1883, p. 11; *Irby, l. c.* p. 185; *B. O. U. List Br. B.* p. 71 (1883); *Saunders, Ibis*, 1884, p. 377; *Seebohm, Hist. Br. B.* ii. p. 256 (1884); *Tristr. Faun. & Flor. Palest.* p. 79 (1884); *Whitehead, Ibis*, 1885, p. 40; *Gigl. Avif. Ital.* p. 165 (1886); *Backhouse, Ibis*, 1887, p. 72; *Tait, t. c.* p. 198; *Lilford, t. c.* p. 282; *id. Col. Fig. Br. B.* part iv. (1887); *Irby, Key List Br. B.* p. 21 (1888); *Gigl. Avif. Ital. 1st Resoc.* p. 122 (1889); *Lilford, Ibis*, 1889, p. 323.
- Le Lulu ou La Petite Alouette huppée, *Daubent. Pl. Enl.* v. pl. 503. fig. 2; *Montb. Hist. Nat. Ois.* v. p. 74 (1778).
- Wood-Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 371 (1783); *Yarr. Br. B.* i. p. 417 (1843).
- Lesser Crested Lark, *Lath. t. c.* p. 391 (1783).
- Alauda nemorosa*, *Gm. Syst. Nat.* i. p. 797 (1788); *Roux, Orn. Provenç.* pl. 183 (1825).
- Lullula arborea*, *Kaup, Natürl. Syst.* p. 92 (1829); *Sharpe, P. Z. S.* 1874, p. 635; *Irby, B. Gibr.* p. 113 (1875); *Radde, Orn. Cauc.* p. 211 (1884); *Reid, Ibis*, 1885, p. 246; *Salvad. Elenc. Ucc. Ital.* p. 154 (1886).
- Galerita nemorosa*, *Brehm, Vög. Deutschl.* p. 316 (1831).
- Galerita arborea*, *Brehm, t. c.* p. 317 (1831); *Bp. Comp. List*, p. 37 (1838); *Cab. Mus. Hein. Th.* i. p. 125 (1850); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 683 (1871).
- Corys arborea*, *Bogd. B. Cauc.* p. 74 (1879).
- Galerita musica et G. anthirostris*, *Brehm, Vogelf.* p. 124 (1855).

Adult. General colour above deep sandy rufous, with broad black centres to the feathers, the mantle rather paler and less broadly centred with black; lower back and rump ashy brown; upper tail-coverts long, ashy brown with a reddish tinge; lesser wing-coverts ashy brown marked with sandy rufous; median and greater coverts dark brown with broad rufous margins; a conspicuous white spot on the edge of the wing; bastard-wing and primary-coverts black, with broad whitish ends, the black forming a patch on the latter; quills dark brown, the primaries edged with sandy buff, and narrowly fringed with white at the ends; the secondaries dark brown, with a median patch of rufous at the end of the feathers; centre tail-feathers reddish brown, with dusky brown in the centre, the remainder black, with a triangular white spot at the ends, increasing in extent towards the outer feather, which is smoky brown, with a broad oblique mark of black on the inner web; the outer web dusky towards the tip; crown of head sandy buff, the feathers broadly centred with black; hind neck and sides of neck lighter than the crown; lores and a broad eyebrow whitish, nearly meeting on the nape; eyelid whitish; ear-coverts rufous, dark brown along the upper margin; cheeks, throat, and under surface of body whitish, tinged with yellow on the breast and abdomen; the throat and chest washed with yellowish buff, the throat narrowly and the fore neck and chest broadly streaked with black; sides of body and flanks brown, streaked with black; axillaries and under wing-coverts leaden grey; quills dusky below, ashy grey on the inner web. Total length 5.5 inches, culmen 0.5, wing 3.65, tail 1.9, tarsus 0.8.

The males, as determined in the collection, have the wing from 3·6 to 3·95 inches, the females from 3·6 to 3·8. There is no difference in the colour of the sexes, but in the *winter plumage* the general coloration is more rufous. The sexes, if the determinations are correct, seem to differ less in size than is usual in the family.

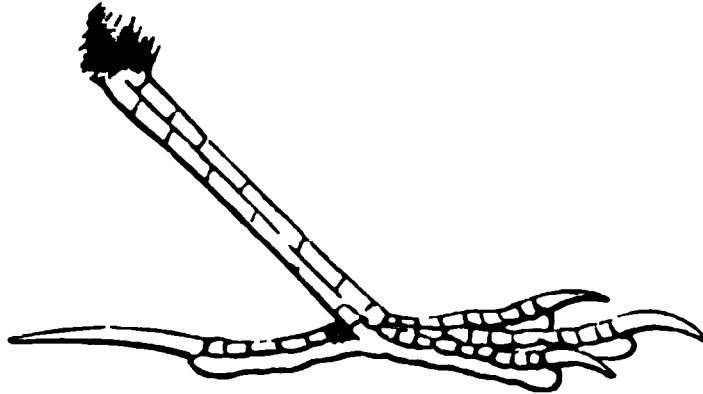
Hab. The same as that of the genus.

| | | |
|----------------------------|--|----------------------------|
| a. Ad. sk. | England, Oct. | Gould Coll. |
| b. Ad. sk. | Bristol, Oct. 25. | Tweeddale Coll. |
| c. Ad. sk. | Axmouth, Devon, Dec. | R. B. Sharpe, Esq.
[P.] |
| d. Ad. st. | Wiltshire. | Montagu Coll. |
| e. Ad. ; f, g.
Juv. sk. | Hampshire. | Salvin-Godman Coll. |
| h, i, k. Ad. sk. | Colgate, Sussex, Dec., April. | R. B. Sharpe, Esq.
[P.] |
| l. ♂ ad. st. | Brighton, Feb. | H. Swaysland [C.] |
| m. Ad. sk. | Humpstead Heath, Oct. 27
(R. B. S.). | Hume Coll. |
| n, o. ♂ ♀ ad. sk. | S. Norway, April, July (J.
Baker). | Salvin-Godman Coll. |
| p, q. ♂ ad. sk. | Skåne, Sweden, Feb., March
(W. Meres). | R. B. Sharpe, Esq.
[P.] |
| r, s. Ad. sk. | Heligoland, Sept., Nov. | R. B. Sharpe, Esq.
[P.] |
| t. ♂ ; u, v. ♀ ad.
sk. | Heligoland, April, Oct.,
Dec. (L. Gätke). | Seebohm Coll. |
| w. ♂ ad. sk. | Valkenswaard, Holland, May
26 (H. S.). | Seebohm Coll. |
| x. Ad. sk. | Belgium, Dec. 1. | Brussels Museum [P.] |
| y. Ad. sk. | France. | Gould Coll. |
| z, a'. Ad. sk. | Arcachon and Paris, Jan.
(E. V. Seebohm). | Seebohm Coll. |
| b'. ♂ ad. sk. | Seville, Spain, Feb. 20
(Ruiz). | Seebohm Coll. |
| c', d'. ♂ ad. sk. | Gibraltar, April 21. | Colonel Irby [P.] |
| e'. Ad. sk. | Coimbra, Portugal. | Dr. L. Vieira [P.] |
| f'. ♀ ad. sk. | Tangier (Olcene). | Tweeddale Coll. |
| g', h'. ♂ ad. sk. | Asia Minor, Jan, Nov. | T. Robson [C.] |
| i'. ♂ ad. sk. | Smyrna, Nov. 27 (C. G. D.). | Seebohm Coll. |
| k', l' ♂ ♀ ad. sk. | Taurus Mountain, Asia Minor, | Seebohm Coll. |

19. CALENDULA.

Type.

Calendula, Swains. *Classif. B.* ii. p. 292 (1837) *C. crassirostris*.
Erana, Gray, *List Gen. B.* 1840, p. 48. *C. crassirostris*.

Foot of *Calendula crassirostris*.

Range. Confined to South Africa.

1. *Calendula crassirostris*.

Alouette à gros bec, Levaill. *Ois. d'Afr.* iv. pl. 193 (1805); *Sunder. Krit. om Levaill.* p. 46 (1857).

Alauda crassirostris, Vieill. *N. Dict. d'Hist. Nat.* i. p. 373 (1816);
Gray, Gen. B. ii. p. 380 (1844); *Layard, B. S. Afr.* p. 208 (1867);
Gray, Hand-l. B. ii. p. 119, no. 7773 (1870); *Shelley, Ibis*, 1875,
 p. 81.

Alauda magnirostris, Steph. *Gen. Zool.* xiv. p. 27 (1826).

Melanocorypha crassirostris, Boie, *Isis*, 1828, p. 322.

Calendula magnirostris, Swains. *Classif. B.* ii. p. 292 (1837).

Erana crassirostris, Gray, *List Gen. B.* 1840, p. 48.

Megalophonus crassirostris, Bp. *Consp.* i. p. 243 (1850).

Galerita crassirostris, Licht. *Nomencl.* p. 39 (1854).

Calendula crassirostris, Gurney in *Andersson's B. Dam.-Ld.* p. 195
 (1872); *Sharpe, P. Z. S.* 1874, p. 636; *id. ed. Layard's B. S. Afr.*
 p. 513 (1884).

Ammomanes crassirostris, *Sunder. Av. Meth. Tent.* p. 72 (1872).

Adult. Above dark brown, the feathers tolerably broadly margined with sandy fulvous, getting lighter on the extreme edge of the feather, the lower back and rump ashy brown, more uniform, or having only a few central streaks of dark brown, on the lower back; head rather lighter brown than the rest of the upper surface, the dark brown central streaks rather narrower; hind neck inclining to ashy fulvous and minutely streaked with dark brown; wing-coverts dark brown, somewhat shaded with ashy and rather broadly margined with sandy fulvous on the median and lesser coverts, the greater series margined with ashy, but without such distinct edges of sandy buff as the other series; quills brown, narrowly tipped and margined on the outer web with sandy white, the secondaries distinctly shaded with grey; upper tail-coverts ashy brown shaded with sandy and streaked with dark brown down the centres of the

longest feathers; tail-feathers dark brown margined with ashy grey, the penultimate feather narrowly and the outermost a little more broadly margined and tipped with sandy white or fulvous; lores, feathers above and below the eye, as well as a streak running along the sides of the crown, fulvous white, but not forming a distinct eyebrow; cheeks fulvous white, minutely spotted with blackish brown; ear-coverts dark brown streaked with sandy buff; under surface of body dull yellowish white, the throat very slightly spotted with blackish brown, gradually narrowing on the lower breast and sides of abdomen to hair-like lines; belly, vent, and under tail-coverts unspotted; flanks ashy brown streaked with dark brown; under wing-coverts pale ashy brown narrowly margined with sandy white, the outer feathers near the bend of the wing sandy white spotted with brown, the centres of the feathers being of this colour: "upper mandible horn-colour, the lower one buff shading into dark horn-colour towards the tip; legs pale brown; iris brown" (*G. E. Shelley*). Total length 6·8 inches, culmen 0·75, wing 4, tail 2·75, tarsus 1.

The sexes are alike in colour, but the female has rather a smaller bill. The wing appears to be from 3·95–4·1 in the males, and from 3·75–3·9 in the females.

Young. Duller and more uniform brown than the adult, with whitish edgings to the feathers of the crown, ear-coverts, and the wing-coverts, the greater series of the latter with sandy-rufous margins; quills brown, paler towards the tips, and margined with sandy rufous paling into whitish buff towards the tips of the secondaries; under surface of body white, the breast streaked with blackish brown, each feather narrowly margined with whitish.

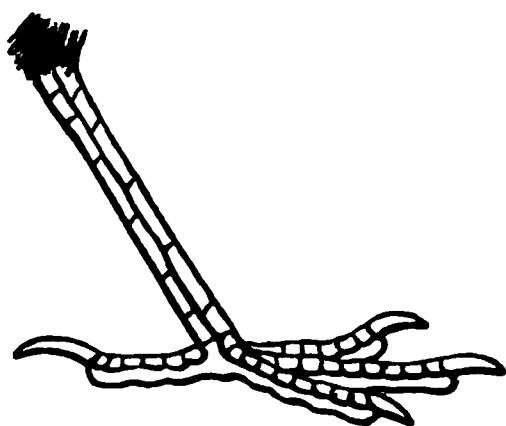
Winter plumage. Duller and more ashy brown than in summer, all the feathers obscured with greyish margins; underneath more yellowish, the spots on the breast duller and paler brown, and not nearly so largely developed.

Hab. South Africa.

| | | |
|---|--------------------------------------|-------------------|
| <i>a.</i> Ad. sk. | Cape Colony. | Sir A. Smith [C.] |
| <i>b, c, d.</i> Ad.; <i>e.</i> Juv. sk. | Cape Colony (<i>E. L. Layard</i>). | Sharpe Coll. |

20. AMMOMANES.

Ammomanes, *Cab. Mus. Hein.* Th. i. p. 125 (1850) A. deserti. ^{Type.}



Foot of *Ammomanes algeriensis*.

Range. Desert countries of N.W. Africa to North-eastern Africa, Palestine, and through Persia and Arabia to N.W. India.

Key to the Species.

- a. With a blackish band at the end of the tail, the feathers being reddish or white for more than their basal half.
 - a'. Primaries brown, edged externally with rufous or sandy buff, which does not extend across the base of the feather.
 - a''. Under surface rufescent, with broad dusky streaks on the breast; under wing-coverts chestnut *phœnicura*, p. 642.
 - b''. Under surface white, including the under wing-coverts; no dusky streaks on the breast *grayi*, p. 643.
 - b'. Primaries rufous with dusky tips; under wing-coverts rufous *cinctura*, p. 644.
- b. Tail-feathers dusky brown or blackish, rufous along the outer webs, sometimes rufescent towards the base.
 - c'. Under wing-coverts and quill-lining rufous or chestnut.
 - c''. Quills externally rufous for more than the basal half of the outer web of the primaries.
 - a'''. Sandy vinous above *algeriensis*, p. 645.
 - b'''. Ashy above *deserti*, p. 646.
 - d''. Quills dusky brown narrowly edged with ashy fulvous; above mouse-brown *phœnicuroides* -
 - d'. Under wing-coverts and quill-lining ashy or leaden grey.
 - e''. Larger: wing 4.1 inches; chestnut above; flanks ashy; chest strongly streaked with black *ferruginea*,
 - f''. Smaller: wing 3.6 inches; light rufous above; flanks washed with light rufous; only a few dusky spots on the chest. e'
 - e'. Larger: breast thickly spotted with black; sides of body ashy; under wing-coverts and lining of quills leaden grey

1. *Ammomanes phoenicura*.

Mirafra phoenicura, *Frankl. P. Z. S.* 1831, p. 110; *Sykes, P. Z. S.* 1832, p. 93; *Jerd. Madr. Journ.* xi. p. 32 (1840); *Blyth, J. A. S. Beng.* xiii. pt. 2, p. 900 (1844); *Gray, Gen. B.* ii. p. 383 (1844); *Bp. Consp.* i. p. 243 (1850); *Gray, Hand-l. B.* ii. p. 122, no. 7610 (1870).

Ammomanes phoenicura, *Blyth, Cat. B. Mus. As. Soc.* p. 134 (1840); *id. J. A. S. Beng.* xxiv. p. 258 (1855); *Horsf. & Moore, Cat. B. Mus. E. I. Co.* ii. p. 477 (1856); *Jerd. B. Ind.* ii. p. 421 (1863); *Beavan, Ibis*, 1868, p. 179; *Hayes Lloyd, Ibis*, 1873, p. 414; *Hume, Nest & Eggs Ind. B.* p. 477 (1873); *Ball, Str. F.* ii. p. 422 (1874); *Butler, Str. F.* iii. p. 490 (1875); *Fairbank, Str. F.* iv. p. 261 (1876); *Ball, Str. F.* v. p. 223 (1877); *Davidson & Wenden, Str. F.* vii. p. 85 (1878); *Butler, Cat. B. Sind &c.* p. 40 (1879); *Hume, Str. F.* viii. p. 108 (1879); *Vidal, Str. F.* ix. p. 72 (1880); *Butler, Cat. B. Bomb. Pres.* p. 63 (1880); *Davidson, Str. F.* x. p. 314 (1882); *Swinh. & Barnes, Ibis*, 1885, p. 129; *Macgr. Str. F.* x. p. 440 (1887).

Adult male. Above dark brown, nearly uniform or with some slight remains of sandy-rufous margins to the feathers; lower rump, upper tail-coverts, and tail-feathers rufous, the latter with a blackish band at the ends, increasing in extent towards the middle of the tail, the centre feathers having the terminal half blackish; wing-coverts and quills dark brown, with narrow rufous edges to the primary-coverts and quills, the latter narrowly edged with sandy rufous; head like the back; lores and a faint streak over the eye and sides of face tawny rufous; the ear-coverts ashy brown with fulvescent streaks; cheeks and under surface of body tawny rufous, deepening into chestnut on the abdomen; the breast washed with ashy brown, especially on the sides; the lower throat, fore neck, and breast spotted with black, increasing in size on the chest, and rather more longitudinal on the breast; under wing-coverts and quill-lining chestnut-rufous: "bill blackish horny; legs and feet brownish black; iris brown" (*G. M. Slaughter*). Total length 6·2 inches, culmen 0·6, wing 4·15, tail 2·35, tarsus 0·9.

Adult female. Similar to the male in colour. Total length 6·2 inches, culmen 0·4, wing 3·9, tail 2·2, tarsus 0·8.

| | | |
|--|---|--------------------|
| <i>g.</i> ♂ ; <i>h, i.</i> ♀ ad. sk. | Jodhpur, Sept. (<i>Dr. King</i>). | Hume Coll. |
| <i>k, l.</i> ♂ ; <i>m, n.</i> ♀ ad. sk. | Sambhur, May, July, Aug. (<i>R. M. Adam</i>). | Hume Coll. |
| <i>o.</i> ♂ ; <i>p, q.</i> ♀ ad. sk. | Ajmere, Dec. (<i>A. O. H.</i>). | Hume Coll. |
| <i>r, s.</i> ♂ ; <i>t, u, v.</i> ♀ ad. sk. | Gurgaon district, July, Sept. (<i>W. N. Chill</i>). | Hume Coll. |
| <i>w, x.</i> ♂ ♀ ad. sk. | Banda, Bundelkund, Dec. (<i>G. F. L. Marshall</i>). | Hume Coll. |
| <i>y-e'.</i> Ad. et juv. sk. | Etawah, Jan., July, Sept. (<i>A. O. H. & W. E. B.</i>). | Hume Coll. |
| <i>f.</i> ♂ ad. sk. | Jhansie, May 2. | Hume Coll. |
| <i>g'-k'.</i> Ad. et juv. sk. | Jhansie. | Pinwill Coll. |
| <i>l', m'.</i> Ad. sk. | Saugor. | India Museum. |
| <i>n', o'.</i> ♂ ♀ ad. sk. | Allahabad, March. | Hume Coll. |
| <i>p'.</i> ♂ ad. sk. | Mogulserai, Dec. (<i>W. E. Brooks</i>). | Hume Coll. |
| <i>q', r'.</i> Ad. sk. | Chunar, Nov. (<i>W. E. B.</i>). | Hume Coll. |
| <i>s', t'.</i> ♂ ♀ ad. sk. | Dinapur, Oct., Dec. (<i>W. E. B.</i>). | Hume Coll. |
| <i>u'.</i> ♂ ad. sk. | Buxar, Nov. (<i>W. E. B.</i>). | Hume Coll. |
| <i>v', w'.</i> Ad. sk. | Behar. | Hodgson Coll. |
| <i>x', y'.</i> ♀ ad. sk. | Mirzapur, March (<i>R. Thompson</i>). | Hume Coll. |
| <i>z'.</i> Ad. sk. | Mundla district, April (<i>R. Thompson</i>). | Hume Coll. |
| <i>a''-c''.</i> Ad. sk. | Kamptee. | Dr. B. Hinde [P.]. |
| <i>d'', e''.</i> ♂ ♀ ad. sk. | Mhow, March. | Col. Swinhoe [P.]. |
| <i>f''.</i> Ad. sk. | Khandeish, Nov. (<i>J. Davidson</i>). | Hume Coll. |
| <i>g'', h''.</i> Ad. sk. | Khandeish. | Tweeddale Coll. |
| <i>i''.</i> Ad. sk. | Satpura Hills, Jan. (<i>V. Ball</i>). | Hume Coll. |
| <i>k'', l''.</i> Ad. sk. | Deccan (<i>Col. Sykes</i>). | India Mus. [P.]. |
| <i>m''.</i> ♂ ad. sk. | N. of Ahmednuggur, Nov. (<i>S. B. Fairbank</i>). | Tweeddale Coll. |
| <i>n'', o''.</i> ♂ ; <i>p''.</i> ♀ ad. sk. | Belgaum, June, Oct. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>q''-u''.</i> ♂ ad. sk. | Mysore, April, Aug. (<i>R. G. Wardlaw Ramsay</i>). | Tweeddale Coll. |
| <i>v''.</i> ♂ ad. sk. | Bangalore, Sept. (<i>R. G. W. R.</i>). | Tweeddale Coll. |
| <i>w''.</i> ♀ ad. sk. | Coimbatore, Oct. (<i>A. G. R. Theobald</i>). | Hume Coll. |
| <i>x''.</i> ♀ ad. sk. | Pothanore, Oct. (<i>A. G. R. T.</i>). | Hume Coll. |
| <i>y''.</i> ♂ ad. sk. | Secunderabad, Oct. (<i>G. M. Slaughter</i>). | Tweeddale Coll. |
| <i>z'', a³.</i> Ad. sk. | Central India. | Dr. Jerdon [C.]. |

2. *Ammomanes grayi*.

- Alauda grayi*, *Wahlb. Öfv. K. Vet.-Akad. Förh. Stockh.* 1855, p. 213
id. *J. f. O.* 1857, p. 2; *Gray, Hand-l. B.* ii. p. 118, no. 775.
 (1870); *Sharpe, Cat. Afr. B.* p. 71 (1871); *Gurney in Anderson, B. Dam. Ld.* p. 103 (1872).
Alauda nævia (*nec Strickl.*), *Chapm. Trav. S. Afr.*, App. p. 400
 (1868).
Ammomanes grayi, *Sharpe, P. Z. S.* 1874, p. 629, pl. lxxvi. fig. 3;
id. ed. Layard's B. of S. Africa, p. 507 (1884).

Adult male. Above light sandy isabelline, not paler on the head, but slightly fulvescent on the hind neck; forehead, lores, and a tolerably defined eyebrow whitish; feathers in front of the eye dusky blackish; sides of face whitish, the hinder ear-coverts washed with isabelline; entire under surface of body whitish, slightly washed with isabelline on the breast, on each side of which is an indistinct blackish patch; under wing-coverts white with a very faint isabelline tinge; upper wing-coverts sandy isabelline like the back, with light whitish margins, mottled also by means of the grey bases to the feathers; quills greyish, slightly tipped with white and margined with sand-colour on the outer web, the primaries very narrowly bordered, but the secondaries very broadly, the innermost being entirely rufous sand-colour, with broad longitudinal greyish centres; the inner lining of the wing greyish, inclining to white near the base of the inner web; tail dark brown, tipped with white on the inner web, the centre feathers grey with sandy-coloured margins and tips; the basal third of the tail-feathers isabelline, inclining to whitish, and extending further up the outer web of the external feathers. Total length 4·8 inches, culmen 0·65, wing 3·25, tail 1·8, tarsus 0·85.

Adult female. Similar to the male, but rather smaller in the wing. Total length 4·8 inches, culmen 0·6, wing 3·05, tail 1·8, tarsus 0·85.

Hab. S.W. Africa.

| | | |
|-------------------------|--|---------------|
| <i>a-f.</i> ♂ ♀ ad. sk. | Damara-Land, April to June, Nov.,
Dec. (C. J. Andersson). | Sharpe Coll. |
| <i>g.</i> Ad. sk. | Damara-Land (C. J. A.). | Shelley Coll. |

3. *Ammomanes cinctura*.

Melanocorypha cinctura, Gould, *Voy. 'Beagle,' Birds*, p. 87 (1841);
Bp. Consp. i. p. 243 (1850).

Alauda arenicolor, Sundev. *Öfv. K. Vet.-Akad. Förh. Stockh.* 1850,
p. 128.

Ammomanes pallida, Cab. *Mus. Hein. Th.* i. p. 125, note (1850);
Tristr. Ibis, 1859, p. 423; *Leith Adams, Ibis*, 1864, p. 25; *Heugl.*
J. f. O. 1864, p. 491, 1868, p. 24.

Ammomanes cinctura, *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 685 (1871); *Dresser, B. Eur.* iv. p. 335, pl. 234 (1875); *Gigl. Avif. Ital.* p. 65 (1886); *Salvad. Elenc. Ucc. Ital.* p. 158 (1886); *Gigl. Avif. Ital. 1st Resoc.* p. 122 (1889).

Ammomanes deserti, ♀ juv. (*nec Licht.*), *Blanf. East. Persia*, ii. p. 245 (spec. 16).

Adult. Entirely bright sandy rufous, a little shaded with brown on the back and scapulars; wing-coverts like the back, with a subterminal shade of brown on the greater series and bastard wing-feathers; quills entirely rufous, with sandy margins to the secondaries, the primaries with a mark of dusky brown near the end; tail-feathers rufous, with a broad subterminal black band, diminishing in size towards the outer feather, on which it occupies only the inner web; lores and feathers above and below the eye whitish; ear-coverts sandy rufous; cheeks and throat white; remainder of under surface of body isabelline buff, rufescent on the sides of the body and flanks; the chest also rufescent with tiny spots of brown; under wing-coverts and quill-lining sandy rufous. Total length 5.4 inches, culmen 0.5, wing 3.55, tail 2, tarsus 0.8.

In *winter plumage* the upper surface is a little more ashy, with ashy edges to the feathers of the upper surface. From Nubia Dr. Leith Adams has sent a very pale form of the present species, which may indicate the existence of a pale race, but otherwise specimens from N. Africa and Persia seem to be exactly like others from the Cape Verde Islands.

The bird which Mr. Blanford identified as the young of *Ammomanes deserti* from Ispahan is a fully adult female of the present species, and he must have overlooked the well-marked differences in the quills and tail-feathers of the two species.

Hab. From the Cape Verde Islands, through the deserts of North Africa to Nubia and Arabia, eastwards to Persia.

| | | |
|----------------------|------------------------------------|--|
| <i>a.</i> Ad. sk. | Cape Verde Islands. | C. Darwin, Esq. [C.]
(Type of species.) |
| <i>b.</i> Ad. sk. | Cape Verde Islands. | Sir W. Burnett & Admiral
Fitzroy [P.] |
| <i>c, d.</i> Ad. sk. | Cape Verde Islands. | M. A. Bouvier [C.] |
| <i>e.</i> ♂ ad sk. | 2nd Cataract of the Nile. | Dr. A. Leith Adams [P.] |
| <i>f.</i> ♀ ad. sk. | N. of Ispahan, Persia,
July 16. | W. T. Blanford, Esq. [P.] |

4. *Ammomanes algeriensis*.

? Portugal Lark, *Lath. Gen. Syn.* ii. pt. 2, p. 398 (!)
 ? *Alauda lusitana*, *Gm. Syst. Nat.* i. p. 798 (1789)
Annomanes isabellinus (*nec T.*), *Bp. Rev. et*
p. 118; *Loche, Expl. Sci. Algér., Ois.* ii. p. 24
Alauda lusitana, *Degl. Orn. Eur.* i. p. 405 (184
Annomanes deserti, *Loche, Expl. Sci. Algér., O*
Alauda lusitana, *Degl. & Gerbe, Orn. P.*
Ammomanes lusitanica, *Gurney, It.*
Mirafra (!) *deserti* (*nec Licht.*), *D*

Adult male. General colour above vinous isabelline or sandy vinous; wing-coverts like the back, the greater series slightly paler at the ends; primary-coverts pale brown, externally sandy rufous; quills also pale dusky brown, sandy rufous along the outer web; primaries with more than the basal half of the outer web entirely rufous; centre tail-feathers dusky brown, sandy rufous at the tips and on the edges, this rufous colour increasing towards the base of the feathers, which is almost entirely rufous; remainder of the tail-feathers dusky brown, rufous along the outer webs and round the tips, the extreme bases of the feathers being also rufous; head uniform sandy vinous like the back; lores and feathers above and below the eye whitish; ear-coverts sandy vinous like the head; cheeks and throat whitish; remainder of under surface of body pale sandy isabellino, lighter on the lower abdomen and under tail-coverts; on the chest a few indistinct spots of dusky brown; under wing-coverts and quill-lining rufous: "bill brownish flesh-colour above, yellow below and on the margins; iris brown" (*Loche*). Total length 6·5 inches, culmen 0·65, wing 3·85, tail 2·55, tarsus 0·85.

Adult female. Similar to the male in colour, but a little smaller. Total length 5·7 inches, culmen 0·6, wing 3·6, tail 2·4, tarsus 0·8.

Young. Similar to the adult and uniform sandy rufous, but differing in the centre tail-feathers, which are entirely sandy rufous with only a little dusky brown along the shaft. In one nestling this is even wanting altogether and the feathers are entirely rufous.

A specimen from Nubia, presented by Dr. Leith Adams, is much paler than the Algerian birds, but evidently belongs to the same form, on account of the sandy-rufous inner secondaries, these being ashy brown in the darker *A. deserti*.

Hab. Algerian Sahara, ranging into Nubia.

| | | |
|----------------|--|--------------------------|
| a, b. Ad. sk. | Algeria. | Gould Coll. |
| c. ♀ ad. sk. | Algeria (<i>Loche</i>). | Sharpe Coll. |
| d. ♂ ad. sk. | Sahara (<i>Loche</i>). | Shelley Coll. |
| e. Ad. sk. | Laghounat, April 4. | J. H. Gurney, Esq. [P]. |
| f, g. ♂ ♀ ad.: | El Kantara, May (<i>C. Diron</i>) | Seebohm Coll. |
| h. ♂ jr. sk. | | |
| i. Juv. sk. | Biskra, May 6 (<i>H. J. Elvers</i>). | Seebohm Coll. |
| k. ♀ ad. sk. | Nubia. | Dr. A. Leith Adams [P.]. |

5. *Ammomanes deserti*.

Alauda deserti, *Licht. Verz. Doubl.* p. 28 (1823); *Bp. Conspect.* i. p. 244 (1850).

Alauda isabellina, *Temm. Pl. Col.* iii. pl. 244, fig. 2 (1823); *Rupp. Neue Hirb.* p. 104 (1835); *Schl. Rec. Crit.* p. lx (1844).

Mirafra deserti, *Groy, Gen. B.* ii. p. 383 (1844).

Melanocorypha isabellina, *Rupp. Syst. Uebers.* p. 78 (1845).

Ammomanes deserti, *Cab. Mus. Hein.* Th. i. p. 125 (1850).

Melanocorypha deserti etc., *Brehm, Voy. Deutschl.* pp. 121, 122 (1855).

Ammomanes isabellina, *Tristr. Illus.* 1859, pp. 34, 422, *E. C. Taylor, Ibis*, 1864, p. 64.

Ammomanes deserti, *Tristr. P. Z. S.* 1864, p. 434; *Wyatt, Ibis*, 1870, p. 15; *Finsch, Trans. Z. S.* vii. p. 272 (1870); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 684 (1871); *Dresser, B. Eur.* iv. p. 329, pl. 233 (1874, pt.); *Rowley, Orn. Misc.* i. p. 263 (1876); *Tristr. Faun. & Flor. Palestine*, p. 79 (1884).

Ammomanes fraterculus, *Tristr. P. Z. S.* 1864, p. 434; *Taylor, Ibis*, 1867, p. 64; *Shelley, B. Egypt*, p. 137 (1872); *Tristr. Faun. & Flor. Palestine*, p. 80 (1884).

Mirafra lusitana (*nec Gm.*), *Gray, Hand-l. B.* ii. p. 121, no. 7808 (1870).

Mirafra fraterculus, *Gray, t. c.* p. 122, no. 7800 (1870).

Adult male. Similar to *A. algeriensis*, and having more than the basal half of the outer web of the primaries sandy rufous, but differing in the colour of the upper surface, which is ashy brown with a slight shade of sandy vinous; the tail not so rufous, and this colour confined to the outer web of the external feather: "bill and feet pale horn-colour, the former darker at the tip; iris dusky" (*Von Heuglin*). Total length 6·3 inches, culmen 0·55, wing 3·8, tail 2·45, tarsus 0·85.

Adult female. Similar in colour to the male. Total length 5·6 inches, wing 3·65, tail 2·2, tarsus 0·75.

The localities inhabited by this Lark have probably something to do with the variation in the shade of grey which characterizes this species. The Palestine birds are rather larger than the Egyptian, and the Abyssinian birds are much darker grey than any from Egypt; they will probably be found to represent a permanent dark race.

Hab. From Palestine to Egypt, Nubia, and Abyssinia.

| | | |
|---|---|------------------------------|
| <i>a, b.</i> Ad. sk. | Egypt. | Sir Samuel Baker
[P.] |
| <i>c, d.</i> Ad. sk. | Near Assouan, March. | J. H. Gurney, Esq.
[P.] |
| <i>e, f, g.</i> ♀ ad. sk. | Near Assouan and El Kab, Feb.
(<i>G. E. S.</i>). | Shelley Coll. |
| <i>h, i.</i> ♂; <i>k, l.</i> ♀ ad. sk. | Nubia (<i>G. E. S.</i>). | Shelley Coll. |
| <i>m, n.</i> Ad. sk. | Nubia. | Dr. A. Leith Adams
[P.] |
| <i>o.</i> Ad. sk. | Judaea (<i>T. E. Buckley</i>). | Shelley Coll. |
| <i>p.</i> ♀ ad. sk. | Jericho, Dec. 30 (<i>H. B. T.</i>). | Seebohm Coll. |
| <i>q, r, s.</i> ♂; <i>t.</i> ♀
ad. sk. | Palestine. | Canon Tristram [C.] |
| <i>u, v.</i> Ad. sk. | Ain and Amba, Samhar, Aug. | W. T. Blanford, Esq.
[C.] |
| <i>w, x.</i> Ad. sk. | Amba, Aug. (<i>W. Jesse</i>). | Sharpe Coll. |
| <i>y.</i> ♂ ad. sk. | Koomayli, June 31 (<i>W. J.</i>). | Sharpe Coll. |

6. *Ammomanes phœnicuroides*.

Mirafra phœnicuroides, *Blyth, J. A. S. Beng.* xxii. p. 583 (1853).

Ammomanes phœnicuroides, *Horsf. & Moore, Cat. B. E. I. Co. Mus.* ii. p. 478 (1856).

Ammomanes lusitania, *Jerd. B. Ind.* ii. p. 422 (1863); *Hume, Nests*

& *Eggs Ind. B.* p. 478 (1873); *id. Str. P.* i. p. 211 (1873); *Murray, Vertebr. Faun. Sind.* p. 192 (1884).

Ammomanes deserti, *Blanf. East. Persia*, ii. p. 245 (1876); *Butler, Cat. B. Sind etc.* p. 49 (1879); *Hume, Str. P.* viii. p. 108; *C. Swinh. Ibis*, 1882, p. 115; *Dresser, Ibis*, 1889, p. 90; *St. John, t. c.* p. 172.

Adult male. Similar to *A. algeriensis*, but easily distinguished by the primaries, which are simply narrowly edged with ashy fulvous, and do not show the rufous outer web of the foregoing species. The general colour also is a mouse-brown above, and the spots on the breast are rather numerous and distinct. Total length 5·7 inches, culmen 0·6, wing 4, tail 2·55, tarsus 0·8.

Adult female. Does not differ from the male in colour. Total length 6 inches, culmen 0·6, wing 3·9, tail 2·6, tarsus 0·85.

Hab. From the Persian Gulf, east to Afghanistan and N.W. India.

| | | |
|------------------------------------|---|---------------------------|
| a. ♀ ad. sk. | Ras Masandim, Arabian Coast, Dec. | W. T. Blanford, Esq. [C.] |
| b, c. ♂ ad.; d. ♀ ad. sk. | Aaskan, Gwadar, Dizak, Baluchistan, March, Dec. | W. T. Blanford, Esq. [P.] |
| e. ♀ ad. sk. | Gwadar, Dec. (<i>W. T. B.</i>). | Hume Coll. |
| f, g. ♂ ad. sk. | Mekran Coast, Feb. 15 (<i>A. O. H.</i>). | Hume Coll. |
| h, i. ♂ ad.; k. ♀ ad. sk. | Kandahar, March, May (<i>Sir O. St. John</i>). | Hume Coll. |
| l. ♂ ad.; m, n. ♀ ad. sk. | Southern Afghanistan, April, May. | Col. C. Swinhoe [P.] |
| o. ♂ ad. sk. | Chaman, Aug. 7 (<i>Sir O. St. John</i>). | Hume Coll. |
| p. ♂ ad. sk. | Quetta, May 5. | Col. C. Swinhoe [P.] |
| q. Ad. sk. | Quetta, Dec. (<i>Sir O. St. John</i>). | Hume Coll. |
| r. Ad. sk. | Nal, Khelat, April (<i>O. T. Duke</i>). | Hume Coll. |
| s. Ad. sk. | Bolan Pass (<i>Griffith</i>). | India Museum. |
| t. Ad. sk. | Pushut (<i>Griffith</i>). | India Museum. |
| u, v, w. ♂ ad.; x, y, z. ♀ ad. sk. | Kirthar Mountains, Sindh, Dec. (<i>W. T. Blanford</i>). | Hume Coll. |
| a'-d'. ♂ ♀ ad. sk. | Jhelum Distr., Nov. (<i>A. O. H.</i>). | Hume Coll. |
| e'. ♂ ad. sk. | Jacobabad, Dec. 19 (<i>A. O. H.</i>). | Hume Coll. |
| f', g'. ♂ ad.; h, i. ♀ ad. sk. | Sehwan Distr., Dec., Jan. (<i>A. O. H.</i>). | Hume Coll. |

Megalophonus erythrochlamys, *Ayres*, *Ibis*, 1874, p. 103, pl. iii. fig. 2, 1878, p. 298.

Ammomanes erythrochlamys, *Sharpe*, *P. Z. S.* 1874, p. 629; *id. ed. Layard's B. S. Afr.* p. 506 (1884).

Adult male in winter plumage. Above uniform pale fawn-colour, with distinct shaft-stripes of dull rufous on some of the feathers of the head and back; wing-coverts pale fawn like the back, but with pale yellowish-buff margins to the feathers; quills pale brown, broadly margined with fawn-colour, the secondaries more broadly, the innermost being coloured like the wing-coverts and margined in the same manner with yellowish buff; tail dark brown, narrowly margined with fawn-colour, occupying the entire outer web of the last tail-feather, and running round the tip and up the margin of the inner web of this and the penultimate feather; the two centre feathers bleached fawn-colour, paler than the back; lores, feathers below and above the eye, forming an eyebrow, and cheeks white, the ear-coverts pale fawn-colour like the back; under surface of body creamy white, washed with fawn-colour on the sides of the body, the chest marked with triangular markings of pale brown; thighs pale fawn; under tail-coverts creamy white; under wing-coverts buffy whitish, the greater series pale ashy brown, the outer plumes fawn-coloured; inner lining of wing also pale ashy brown, inclining to pale fawn-colour at base of inner web: "bill dusky, under mandible paler; feet pale brown; iris light dusky hazel" (*T. Ayres*). Total length 6·5 inches, culmen 0·75, wing 3·6, tail 2·8, tarsus 1·05.

Summer plumage. Deeper cinnamon above, the quills and coverts all being edged with the same dark colour; the tail broadly edged and tipped with cinnamon-rufous, the outermost feathers not paler-margined, the two centre ones being almost entirely cinnamon, with a broad streak of greyish black down the middle; a greyish shade on the hind neck, which is not seen in the winter dress; lores, eyebrow, sides of face, and underparts generally washed with yellowish; the chest with more numerous and more distinct markings.

Hab. Southern Africa, from the Transvaal to Damara-Land.

- | | | |
|--------------------------|---------------------|-----------------------------|
| <i>a.</i> Juv. sk. | Damara-Land. | C. J. Andersson [C.]. |
| <i>b, c, d.</i> Ad. sk. | Walwisch Bay, May | (C. J. Sharpe Coll. |
| | <i>Andersson</i>). | |
| <i>e, f.</i> ♂ ♀ ad. sk. | Damara-Land, Nov. | (<i>Axel Shelley Coll.</i> |
| | <i>Erickson</i>). | |

8. *Ammomanes ferruginea*.

Alauda ferruginea, *Smith*, *Ill. Zool. S. Afr., Aves*, pl. 29

Lafr. Rev. Zool. 1839, p. 258; *Layard, B. S. Afr.* p. 201

Megalophonus ferrugineus, *Bp. Consp.* i. p. 244 (1850).

Hand-l. B. ii. p. 122, no. 7818 (1870).

Ammomanes ferruginea, *Sharpe, P. Z. S.* 1874, p. 627: *id.*

B. S. Afr. p. 504 (1884).

Adult (type of species). Similar to *A. eryth*

Key to the Species.

- a. No white ear-coverts, the sides of the face being black like the crown and under surface of body *australis*, p. 651.
- b. Ear-coverts white.
 - a'. With no black on the crown, which is hoary whitish or ashy, with a broad black streak along the sides of the crown *grisea*, p. 652.
 - b'. Crown black.
 - a''. With no chestnut on the upper surface, which is ashy brown or blackish
 - a'''. Crown black with a white forehead .. *melanauchen*, p. 655.
 - b'''. Crown black with the forehead black, but a whitish patch on the occiput.... *verticalis*, p. 656.
 - b''. Back chestnut; rump and upper tail-coverts grey or hoary whitish } *leucotis*, p. 657.
} *smithii*, p. 658.

1. *Pyrrhulauda australis*.

Megalotis australis, *Smith, Rep. Exped. C. Afr.*, App. p. 49 (1836).
Pyrrhulauda australis, *Smith**, *Ill. Zool. S. Afr., Aves*, pl. 24 (1839);
Gray, Gen. B. ii. p. 381 (1844); *Bp. Consp.* i. p. 511 (1850);
Layard, B. S. Afr. p. 210 (1867); *Gray, Hand-l. B.* ii. p. 123,
 no. 7830 (1870); *Ayres, Ibis*, 1871, p. 258; *Gurney in Anderss.*
B. Dam. Ld. p. 191 (1872); *Sharpe, ed. Layard's B. S. Afr.*
 p. 493 (1884).

Pyrrhulauda melanosoma, *Swains. Classif. B.* ii. p. 294 (1837).

Adult male. General colour above brown, more or less mottled with blackish bases to the feathers; wing-coverts and quills black,

β. *PYRRHULAUDA MODESTA*.

Pyrrhulauda modesta, *Finsch, J. f. O.* 1864, p. 412.

Described from a female specimen said to have come from the Canary Islands.

γ. *PYRRHULAUDA LEUCOPARÆA*.

Coraphites leucoparæa, *Fischer & Reichen. J. f. O.* 1884, p. 55; *Fischer, Zeitschr. ges. Orn.* i. p. 318 (1884); *id. J. f. O.* 1885, p. 137; *Reichen. J. f. O.* 1887, p. 73.

Hab. East Africa.

The authors do not give a hint as to the nearest ally of this species. It may probably be the winter plumage of *P. smithii*, but I cannot determine this without seeing a specimen.

δ. *PYRRHULAUDA SIGNATA*.

Pyrrhulauda signata, *Oust. Bibl. haut. Etudes*, xxxi. art. x. p. 9.

Hab. Somali-Land.

This species I think will ultimately prove to be founded on one of the plumages of *P. leucotis*.

* Swainson's 'Classification' is supposed to have been published in 1837, but he there quotes "*Pyrrhulauda*, Smith." I cannot find any mention of this genus before Smith's 'Illustrations,' and Mr. Waterhouse gives the date of the 6th part of this work as 1839. Smith himself speaks of his having proposed *Pyrrhulauda* as a genus in 1829, but I have not found any published account of it.

with dusky brown bases to the feathers; wing-coverts brown, with pearly-grey edges, whitish on the greater coverts; bastard-wing, primary-coverts, and quills dark brown, with ashy-greyish margins; central tail-feathers pale brown, with whitish edges, the remainder dark brown, edged with ashy, the external feather smoky whitish along the outer web and at the end of the inner web; crown of head a little paler than the back, and inclining to hoary whitish on the forehead; lores and a broad stripe above the eye black; sides of face and ear-coverts hoary white, the fore part of the cheeks black, extending to the lores and below the eye; throat and under surface of body black; sides of neck ashy brown like the back; a conspicuous patch on the sides of the breast hoary white; sides of body also hoary white, but slightly mixed with black on the flanks; thighs white; under tail-coverts black, as also the under wing-coverts and axillaries; quills below dusky, ashy whitish along the inner edge: "bill whitish lead-colour; feet brownish flesh-colour; iris dark brown" (*E. A. Butler*). Total length 4·6 inches, culmen 0·4, wing 2·9, tail 1·6, tarsus 0·6.

Adult female. Different from the male in having no black eyebrow and no black on the under surface of the body; the lores and eyebrow are sandy buff or sandy whitish; the cheeks and sides of face sandy whitish, the ear-coverts browner; throat white; rest of under surface of body isabelline, slightly rufescent on the chest, which has some spots of dusky brown: "bill bluish flesh-colour, horny brown on the culmen; feet and iris as in male" (*E. A. Butler*). Total length 4·3 inches, culmen 0·4, wing 3, tail 1·6, tarsus 0·65.

I cannot find any evidence of a distinct change of plumage during the cold season. The pale edges to the wing-coverts and quills are broader and more distinct in the winter plumage, and by their abrasion the general tone of the colour is darker in the breeding-season, but the black of the underparts never has any pale margins. Specimens from Travancore and the Nilghiris seem to me to be darker than those from Central India and the North-west. This dark form ranges to Khandala.

Young. Resembles the old female, but is much paler brown, with pale sandy-buff edges to the feathers; under surface of body ashy white, with pale brown centres to the feathers of the throat and breast.

Hab. Indian peninsula and Ceylon, reaching into the N.W. provinces of India, Cutch, and even into Sind.

| | | |
|--|--|------------|
| <i>a.</i> ♂ ad. sk. | Banks of Chenab, Sind, Dec.
(<i>A. O. H.</i>). | Hume Coll. |
| <i>b, c.</i> ♂ ♀ ad. sk. | Cutch, Jan. | Hume Coll. |
| <i>d, e, f.</i> ♂ ad.; <i>g.</i> ♀ ad. sk. | Deesa, April, Aug. (<i>E. A. Butler</i>). | Hume Coll. |
| <i>h.</i> ♂ ad. sk. | Jodhpur, Sept. 12 (<i>G. King</i>). | Hume Coll. |
| <i>i, k, l.</i> ♂; <i>m.</i> ♀ ad. sk. | Kakrolee, Oodeypore, Feb. | Hume Coll. |
| <i>n.</i> ♀ ad. sk. | Ajmere, Nov. (<i>A. O. H.</i>). | Hume Coll. |
| <i>o-t.</i> ♂ ad. et juv.;
<i>u, v.</i> ♀ ad. sk. | Sambhur, Dec., Feb., April,
June, July (<i>R. M. Adam</i>). | Hume Coll. |

| | | |
|---|--|-----------------------|
| w, x. ♂ ♀ ad. sk. | Delhi, Jan., March (C. T. Bingham). | Hume Coll. |
| y, z. ♂ ; a'. ♀ ad. sk. | Gurgaon District, Aug., Sept. (W. N. Chill). | Hume Coll. |
| b', c'. ♂ ad. sk. | Lahore, March (C. H. T. Marshall). | Hume Coll. |
| d', e'. ♂ ♀ ad. sk. | Umbala, Jan., Feb. (Dr. Scott). | Tweeddale Coll. |
| f', g'. ♂ ♀ ad. sk. | Dehra Dhoon, March (Dr. G. King). | Hume Coll. |
| h'. ♂ ad. sk. | Kumaon Bhabur, March (G. King). | Hume Coll. |
| i'-r'. ♂ ad. et juv. sk. | Etawah, April, Aug., Oct. (W. E. Brooks). | Hume Coll. |
| s', t'. ♂ ♀ ad. sk. | Futtehgurh, Dec., Feb. (A. Anderson). | Seebohm Coll. |
| u', v'. ♂ ; w'. ♀ ad. sk. | Allahabad, Dec. | Hume Coll. |
| x', y'. ♂ ♀ ad. sk. | Oudh, Dec., Jan. | Hume Coll. |
| z'-d'. ♂ ; e'', f''. ♀ ad. sk. | Nepal. | Hodgson Coll. |
| g'', h''. ♂ ad. sk. | Nepal (B. H. Hodyson). | India Museum. |
| i'', k''. ♂ ♀ ad. sk. | Behar. | Hodgson Coll. |
| l'. ♂ ad. sk. | Dacca (Tytler). | India Museum. |
| m''-o''. ♂ ♀ ad. sk. | Calcutta, Dec. | Hume Coll. |
| p''. ♀ ad. sk. | Aesonsole, Feb. (W. E. Brooks). | Hume Coll. |
| q''. ♂ ad. sk. | Dinapur, Sept. (W. E. Brooks). | Hume Coll. |
| r''-t''. ♂ ad. sk. | Saugor, Aug., Sept. | Hume Coll. |
| u''. ♂ ad. sk. | Saugor (Hooper). | India Museum. |
| v''. ♂ ad. sk. | Kamptee. | Dr. R. B. Hinde [P.]. |
| w''. ♂ ad. sk. | Jubbulpur. | Tweeddale Coll. |
| x''. ♂ ad. sk. | Raipur. | Hume Coll. |
| y'', z''. ♂ ♀ ad. sk. | Mhow, Oct., Dec. | Col. Swinhoe [P.]. |
| a ³ . ♂ ad. sk. | Khandeish. | Tweeddale Coll. |
| b ³ , c ³ . ♂ ♀ ad. sk. | Deccan (Sykes). | India Museum. |
| d ³ . ♀ ad. sk. | Deccan (Burgess). | Gould Coll. |
| e ³ . ♂ ad. sk. | Berar, W. of Chanda, Jan. (W. T. Blanford). | Hume Coll. |
| f ³ -i ³ . ♂ ♀ ad. sk. | Khandala, March, April (S. ...). | Tweeddale Coll. |

3. *Pyrrhulanda melanauchen*.

- Pyrrhulanda crucigera* (*nec T.*), *Rüpp. Neue Wirb., Vög.* p. 101 (1835); *id. Syst. Uebers.* p. 79 (1845); *Heugl. Syst. Uebers.* p. 44 (1856); *Brehm, Reis. Habesch*, p. 347 (1863).
- Coraphites melanauchen*, *Cab. Mus. Hein. Th. i.* p. 124 (1850); *Heugl. J. f. O.* 1868, p. 219; *id. Orn. N.O.-Afr. i.* pt. 2, p. 672 (1870); *Finsch, Trans. Z. S. vii.* p. 275, pl. 26 (1870); *id. & Hartl. Vög. Ostaf.* p. 469, note (1870).
- Coraphites albifrons*, *Sundev. Öfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 127.
- Pyrrhulanda frontalis*, *Bp. Consp. i.* p. 512 (1850, *ex Licht. MSS.*); *Gray, Hand-l. B. ii.* p. 123, no. 7836 (1870).
- ? *Coraphites nigriceps*, *Cab. Mus. Hein. Th. i.* p. 124 (1850); *Heugl. J. f. O.* 1868, p. 218.
- Coraphites frontalis*, *Licht. Nomencl.* p. 39 (1854); *Heugl. J. f. O.* 1868, p. 219, note; *id. Orn. N.O.-Afr. i.* pt. 2, p. 671 (1871); *Oust. Faun. et Flor. Comalis, Ois.* p. 11 (1882); *id. Bibl. haut. Etudes d. Sci. Nat. xxxi.* art. x. p. 9 (1886).
- Pyrrhulanda affinis*, *Blyth, Ibis*, 1867, p. 185; *Gray, Hand-l. B. ii.* p. 123, no. 7838 (1870); *Blanf. Ibis*, 1873, p. 223; *Hume, Str. F. i.* p. 212 (1873).
- Pyrrhulanda sincipitalis*, *Blyth, Ibis*, 1867, p. 185; *Gray, Hand-l. B. ii.* p. 123, no. 7839 (1870).
- Pyrrhulanda melanauchen*, *Gray, Hand-l. B. ii.* p. 123, no. 7837 (1870); *Blanf. Geol. & Zool. Abyss.* p. 390 (1870); *Antin. & Salvad. Viagg. Bogos*, p. 112 (1873); *Blanf. East. Persia, ii.* p. 246 (1876); *Hume, Str. F. vii.* p. 64 (1878); *id. Str. F. viii.* p. 108 (1879); *Doig, t. c.* p. 371; *Butler, Cat. B. Sind*, p. 49 (1876); *Scl. & Hartl. P. Z. S.* 1881, p. 172; *Hartl. t. c.* p. 159; *Murray, Vertebr. Faun. Sind*, p. 193 (1884); *Yerbury, Ibis*, 1886, p. 18.

Adult male. Similar to *P. grisea*, but differing in the markings of the head; the head black, with a frontal mark of white; lores, fore part of checks, and feathers just below the eye black; checks and ear-coverts white, forming a large patch; under surface of body black, which extends on to the sides of the neck in a patch, running in a narrow line round the ear-coverts to the black crown, and extending in a broad black band down to the sides of the mantle and forming a collar round the lower hind neck: "bill pearly white with a bluish tinge; legs and feet pale hoary flesh-colour; iris brown" (*A. O. Hume*). Total length 4·8 inches, culmen 0·45, wing 3, tail 1·9, tarsus 0·65.

Adult female. Differs from the male in wanting the black on the crown and underparts, and resembles the hen of *P. grisea*. It is, however, always paler above and has the chest tinged with sandy buff with a few dusky streaks, the throat and abdomen being pure white. Total length 5 inches, culmen 0·45, wing 3·15, tail 1·95, tarsus 0·7.

The black collar on the hind neck is evidently gradually assumed in the nesting-season, and in some winter-plumaged specimens it is absent altogether, while in others it can only be traced with difficulty.

Hab. Nubia and Abyssinia to Arabia, and thence to Baluchistan and N.W. India.

| | | |
|----------------------------|--|---------------------------|
| a. Juv. sk. | 5th Cataract of the Nile. | F. Galton, Esq. [P.] |
| b. Ad. sk. | Nubia (<i>Hemprich & Ehrenberg</i>). | Shelley Coll. |
| c, d. ♂; e. ♀ ad. sk. | Zoulla, Annesley Bay, Jan. | W. T. Blanford, Esq. [C.] |
| f. ♀ ad. sk. | Massowa, Aug. 26. | W. T. Blanford, Esq. [C.] |
| g-l. ♂; m, n. ♀ ad. sk. | Massowa, Aug. | W. Jesse, Esq. [C.] |
| o. ♂ ad. sk. | Amba, Sambar, Aug. | W. T. Blanford, Esq. [C.] |
| p. ♂ ad. sk. | Amba, Aug. (<i>W. Jesse</i>). | Shelley Coll. |
| q. ♀ ad. sk. | Jeddah (<i>Zohrab</i>). | Shelley Coll. |
| r. ♂ ad. sk. | Aden. | Major Yerbury [P.] |
| s, t. ♂; u. ♀ ad. sk. | Socotra, March. | Prof. I. B. Balfour [C.] |
| v, w. ♂; x-z. ♀ ad. sk. | Socotra, Feb., March (<i>I. B. B.</i>). | Shelley Coll. |
| α', β'. ♂ ad. sk. | Karachi, Sind, Nov., Jan. (<i>W. T. Blanford</i>). | Hume Coll. |
| c', d'. ♂ ♀ ad. sk. | Karachi, Feb. (<i>W. T. B.</i>). | Seebohn Coll. |
| e'. ♀ ad. sk. | N.W. of Kotri, Sind, Dec. (<i>W. T. B.</i>). | Hume Coll. |
| f', g'. ♂ ♀ ad. sk. | Umarkot, Jan. (<i>W. T. B.</i>). | Seebohn Coll. |
| h'-v'. ♂; w'-d'. ♀ ad. sk. | Jodhpur, Jan., Feb. (<i>A. O. H.</i>). | Hume Coll. |
| e''. ♂ ad. sk. | Muttra, Jan. 20 (<i>R. M. Adam</i>). | Hume Coll. |

4. *Pyrrhulanda verticalis*.

Megalotis verticalis, *Smith, Rep. Exped. Centr. Afr.* p. 48 (1836).
Pyrrhulanda verticalis, *Smith, Ill. Zool. S. Afr., Aves*, pl. 25 (1839);
Gray, Gen. B. ii. p. 381 (1844); *Bp. Conspect.* i. p. 511 (1850);
Layard, B. S. Afr. p. 210 (1867); *Gray, Hand-l. B.* ii. p. 123,
no. 7831 (1870); *Sharpe, Cat. Afr. B.* p. 69 (1871); *Gurney in*
Anderss. B. Dam. Ld. p. 190 (1872); *Sharpe & Bourcier, Bull. Soc.*
Zool. France, i. p. 309 (1876); *Sharpe, ed. Layard's B. S. Afr.*
p. 492 (1884).

Coraphites verticalis, *Licht. Nomencl. Av.* p. 39 (1854).

| | | |
|---|--|--------------|
| <i>g, h.</i> ♂ ; <i>i.</i> ♀ ad.
sk. | Otjimbique, Damara-Land,
Dec., Feb. (<i>C. J. Andersson</i>). | Sharpe Coll. |
| <i>k, l.</i> ♂ ad. sk. | Ondonga, Ovampo-Land, Nov.
(<i>C. J. A.</i>). | Sharpe Coll. |

5. *Pyrrhulanda leucotis*.

Loxia leucotis, *Stanl. in Salt's Trav. Abyss.*, App. p. lx (1814).

Alauda melanocephala, *Licht. Verz. Doubl.* p. 28 (1823).

Fringilla otoleucus, *Temm. Pl. Col.* iii. pl. 269. figs. 2, 3 (1824).

Megalotis otoleucus, *Swains. Zool. Journ.* iii. p. 347 (1828).

Pyrrhulanda leucotis, *Rüpp. Neue Wirb., Vög.* p. 101 (1835); *Gray, Gen. B.* ii. p. 381 (1844); *Rüpp. Syst. Uebers.* p. 79 (1845); *Bp. Consp. Av.* i. p. 511 (1850); *Scl. Contr. Orn.* 1852, p. 125; *Heugl. Syst. Uebers.* p. 44 (1856); *Hartl. Orn. W.-Afr.* p. 154 (1857); *Speke, Ibis*, 1860, p. 247; *Antin. Cat. descr. Ucc.* p. 75 (1864); *Blanf. Geol. & Zool. Abyss.* p. 392 (1870); *Gray, Hand-l. B.* ii. p. 123, no. 7832 (1870); *Salvad. Ann. Mus. Genov.* (2) i. p. 171 (1884); *Hartl. Zool. Jahrb. Jena*, ii. p. 29 (1886); *Salvad. Ann. Mus. Genov.* (2) vi. p. 268 (1888); *Shelley, P. Z. S.* 1888, p. 29.

Pyrrhulanda leucotis, var. *septentrionalis*, *Sund., teste Bp. Consp. Av.* i. p. 511 (1850).

Coraphites leucotis, *Cab. Mus. Hein.* i. p. 124 (1850); *Heugl. Orn. N.O.-Afr.* i. pt. 2, p. 669 (1870); *Finsch & Hartl. Vög. Ostaf.* p. 466 (1870); *Oust. Faun. et Flor. Comalis, Ois.*, p. 11 (1882); *Hartert, J. f. O.* 1886, p. 582; *Oust. Bibl. haut. Etudes Sci. Nat.* xxxi. art. x. p. 9 (1886).

Coraphites melanocephala, *Licht. Nomencl. Av.* p. 39 (1854).

Adult male. General colour above deep chestnut; the scapulars and lower back with hoary whitish margins; rump and upper tail-coverts pearly grey; lesser wing-coverts whitish; the median and greater coverts chestnut, with broad buffy-white edges, the former series black at the base, forming a broad black band; bastard-wing and primary-coverts black, edged with white near the end of the outer web; quills black edged with rufous, very broadly on the inner secondaries, which are fringed with whitish at the ends; centre tail-feathers black, edged with rufous and ashy at the ends; the remainder black with rufous margins, the outer feather white along the external web; crown of head, occiput, and nape black; hind neck with a white collar, succeeded by a black collar across the top of the mantle, joining the black of the under surface; lores, feathers round the eye, and fore part of cheeks black; sides of face, ear-coverts, and cheeks white, separated from the white collar on the hind neck by a line of black which extends from the crown to the throat; throat and under surface of body black; the sides of the breast ashy brown and having a patch of chestnut; sides of body ashy brown, the lower flanks whitish, with black centres to some of the feathers; thighs white; under tail-coverts black, as also the under wing-coverts and axillaries; quills below dusky, isabelline along the inner edge. Total length 4.5 inches, culmen 0.4, wing 3, tail 1.7, tarsus 0.55.

Adult female. Differs from the male in wanting the black on the head. Upper surface chestnut; the head like the back and separated from the latter by a collar of creamy buff like the sides of the ne

sides of face rufous or pale chestnut; wings like those of the male, but with rather broad rufous margins; underneath sandy buff, with a little black in the centre of the abdomen. Total length 4·6 inches, culmen 0·4, wing 3·1, tail 1·95, tarsus 0·6.

Hab. N.E. Africa from Nubia to Somali-Land and the Equatorial Province.

The specimen from Redjaf, procured in December, is marked by Emin Pasha as being in winter plumage. The feathers of the upper surface are dusky brown with rufous edges, the head blackish, also with rufous margins; the under surface of the body sooty black, the cheeks and ear-coverts hoary white, with a wash of sandy rufous on the latter; sides of body, flanks, and thighs ashy white.

| | | |
|-------------------|--------------------------------------|------------------------------|
| a, b. ♂ ♀ ad. sk. | Nubia (<i>Hedenborg</i>). | Sharpe Coll. |
| c. ♂ ad. sk. | Soudan (<i>Kotschy</i>). | Shelley Coll. |
| d, e. ♂ ♀ ad. sk. | Assoos, Samhar, July. | W. T. Blanford, Esq.
[C.] |
| f. ♂ hiem. sk. | Redjaf, Dec. | Emin Pasha [P.] |
| g, h. ♂ ♀ ad. sk. | Kudurma, Nov. (<i>Emin Pasha</i>). | Shelley Coll. |

Subsp. a. *Pyrrhulauda smithii*.

Pyrrhulauda leucotis (*nec Stanley*), *Smith, Ill. Zool. S. Afr., Birds*, pl. 26 (1839); *Layard, B. S. Afr.* p. 210 (1867); *Chapm. Trav. S. Afr.* ii. App. p. 400 (1868); *Gurney, Ibis*, 1868, p. 268; *Shelley, Ibis*, 1882, p. 351, 1888, p. 301.

Pyrrhulauda smithii, *Bp. Consp.* i. p. 512 (1850); *Gray, Hand-l. B.* ii. p. 123, no. 7833 (1870); *Ayres, Ibis*, 1871, p. 258; *Gurney in Anders. B. Dam.-Ld.* p. 189 (1872); *Sharpe, ed. Layard's B. S. Afr.* pp. 493, 851 (1884).

Pyrrhulauda leucotis, var. *meridionalis*, *Sunder., teste Bp. Consp.* i. p. 512 (1850).

Coraphites smithii, *Cab. Mus. Hein. Th.* i. p. 124 (1850, note); *Finsch & Hartl. Vög. Ostaf.* p. 468 (1870).

Adult male. Similar to *P. leucotis*, but larger, and with a much stouter bill: "bill ashy white; feet ash-colour; iris hazel" (*T. Ayres*). Total length 5 inches, culmen 0·5, wing 3·3, tail 1·9, tarsus 0·7.

Adult female. Similar to the female of *P. leucotis*.

Subdivision II. PASSERES ABNORMALES.*

Cf. Garrod, P. Z. S. 1876, p. 518.

Synopsis of Families.

- A. Furcula rudimentary : sternum with a single deep lateral indentation on its hinder margin†; tail-feathers broad and of ordinary texture. **Atrichiidæ**, p. 659.
- B. Furcula complete : sternum with rounded posterior margin, with a slight indentation near the outer edge of the latter; tail-feathers produced to an extraordinary length, and many of them devoid of hooklets (radioli) **Menuridæ**, p. 661.

Family I. ATRICHIIDÆ.

1. ATRICHIA.

Atrichia, Gould, P. Z. S. 1844, p. 1 Type.
A. clamosa.

Range. Confined to Australia.

In addition to the characters given for the family it should be noticed that *Atrichia* has such a tiny wing that its powers of flight must be rudimentary, and it has the *planta tarsi* more closely scutellated than in any Lark.

Key to the Species.

- a. Larger : throat and breast white, with a blackish patch on the lower throat and fore neck *clamosa*, p. 659.
- b. Smaller : under surface orange-rufous, whiter on the throat, the centre of the chest and breast blackish *rufescens*, p. 660.

1. *Atrichia clamosa*.

Atrichia clamosa, Gould, P. Z. S. 1844, p. 2; *id.* B. Austr. pl. 34 (1844); Gray, Gen. B. i. p. 166 (1848); Bp. Consp. i. p. 219 (1850); Gould, Handb. B. Austr. i. p. 344 (1865); Gray, Hand-l. B. i. p. 205, no. 2897 (1869); Ramsay, Tab. List *Au* B. p. 8 (1888).

Adult. General colour above dark chocolate-brown, **waved**

* Cf. Cat. B. vol. iii. p. 3.

† Dr. Sclater (Ibis, 1874, p. 191, note) refers to the double-notched ~~sternum~~ of *Atrichia rufescens*, but Garrod figures the sternum of *A. rufescens* with a single indentation (cf. P. Z. S. 1876, pl. lii. fig. 7), and the sternum of *A. clamosa* in the Museum of the Royal (

circular markings of black, one of them subterminal, and the other in the centre of the feather, so that the black and brown colours alternate; the head and rump similarly marked, but not so distinctly: wing-coverts and quills dusky brown, varied with rather more rufescent brown than the back, the feathers being edged with rufescent brown, taking the form of notches on some of the quills; many of the greater coverts and inner secondaries patterned like the back, with a subterminal and median line of black, alternating with the brown colour of the feather; upper tail-coverts like the back; tail-feathers black, varied with alternate wavy markings of brown and black on the margins; lores, sides of face, and ear-coverts dusky brown, the latter somewhat ashy; feathers round the eye varied with fulvous spots, with a few whitish streaks on the fore part of the ear-coverts; cheeks dark ashy, throat and breast white, fading off into tawny rufous on the abdomen, which becomes deep tawny rufous or chestnut on the lower abdomen and vent; thighs and under tail-coverts paler tawny rufous, the latter mottled with blackish cross bars; centre of throat dull ashy, developing gradually into a large patch of dark ashy grey, which occupies the lower throat and fore neck, leaving the breast white; sides of breast brown, slightly varied with cross bars of black; under wing-coverts and under surface of quills dusky brown: "bill horn-colour; iris dark brown" (*J. Gould*). Total length 8.5 inches, culmen 0.75, wing 3.1, tail 4.1, tarsus 1.05.

This species has a very distinct seasonal plumage, in which the blackish throat-patch becomes obscured by whitish edges, so that the throat and breast are white with the black patch concealed. Whether the full plumage is gained by the shedding of these white edges I have not had the means of discovering.

Hab. Western and South-western Australia.

| | | |
|--------------|---|----------------------|
| a. Ad. sk. | Perth, West Australia. | Colonial Exhibition. |
| b. ♂ ad. sk. | Albany, King George's Sound,
June 4 (<i>J. Gould</i>). | Eyton Coll. |

2. *Atrichia rufescens*.

Atrichia rufescens, *Ramsay*, *P. Z. S.* 1806, p. 438: *Gould, Suppl. B. Austr.* pl. 26 (1807); *Gray, Hand-l. B. i.* p. 205, no. 2896 (1809); *Ramsay, Tab. List Austr. B.* p. 8 (1808).

Adult male. Similar to *A. clamosa*, but more rufous, and having the upper tail-coverts and the tail-feathers regularly barred across with black; underneath the throat is whitish, gradually becoming ashy; centre of breast black; abdomen clear orange-rufous: "bill horn-colour, becoming whitish on the lower mandible; feet light reddish brown, claws light horn-colour; iris dark brown" (*E. P. Ramsay*). Total length 6.8 inches, culmen 0.65, wing 2.45, tail 2.85, tarsus 0.85.

Hab. Richmond and Clarence River districts.

| | | |
|-----------------|--|-------------|
| a, b. ♂ ad. sk. | Richmond River, N.S.W., Nov.
(<i>E. P. Ramsay</i>). | Gould Coll. |
|-----------------|--|-------------|

Family II. MENURIDÆ.

1. MENURA.

| | |
|--|------------------------------|
| Menura, <i>Davies, Trans. Linn. Soc.</i> vi. p. 207 (1800) | Type.
M. <i>superba</i> . |
| Parkinsonius, <i>Bechst. Kurze Uebers. Vög.</i> p. 134 (1811). | M. <i>superba</i> . |

Range. Confined to Australia.

Key to the Species.

- a. Outer tail-feather white or ashy white on the inner web with rufous notches and tipped with black; under tail-coverts ashy; back ashy brown.
 - a'. Outer tail-feather ashy white below, the bars being reddish brown. *superba*, p. 661.
 - b'. Outer tail-feather white below, the bars being chestnut *victoriæ*, p. 662.
- b. Outer tail-feather not barred; under tail-coverts chestnut; upper surface also rufous brown or dull chestnut *alberti*, p. 662.

1. *Menura superba*.

Menura superba, *Davies, Trans. Linn. Soc.* vi. p. 207, pl. 22 (1800); *Gould, B. Austr.* iii. pl. 14 (1841); *Gray, Gen. B.* ii. p. 153 (1847); *Bp. Consp.* i. p. 215 (1850); *Reichenb. Vög. Neuholl.* p. 77 (1850); *Gould, P. Z. S.* 1853, p. 45; *id. Handb. B. Austr.* i. p. 298 (1865); *Gray, Hand-l. B.* i. p. 185, no. 2529 (1869); *Ramsay, Tab. List Austr. B.* p. 7 (1888).

Superb Menura, *Lath. Gen. Syn. Suppl.* ii. p. 271, pl. cxxxiii. (1801).

Menura novæ hollandiæ, *Lath. Gen. Syn. Suppl.* p. lxi (1801);

Vieill. Gal. Ois. i. p. 323, pl. 192 (1825).

Le Parkinson, *Audeb. et Vieill. Ois. Dor.* ii. *Suppl.* pls. 14-16 (1882).

Paradisea parkinsoniana, *Shaw & Nodder, Nat. Misc.* xiv. pl. 577 (1802).

Menura lyra, *Shaw*.

Parkinsonius mirabilis, *Bechst. Kurze Uebers. Vög.* p. 134 (1811).

Menura vulgaris, *Fleming, Philos. Zool.* ii. p. 241 (1822).

Megapodius menura, *Wagler, Syst. Ar. Megapodius*, sp. 1 (1827).

Menura paradisea, *Swains. Classif. B.* ii. p. 251 (1837).

Mænura superba, *Schl. Dirent.* p. 134 (1872).

Adult. General colour brown, rather slaty brown on the mantle, and slightly washed with hoary grey on the rump; lesser wing-coverts dark slaty brown, the remainder of the wing-coverts rather more rufous; the primaries blackish, externally olive-brown, the secondaries more rufous; upper tail-coverts reddish brown; two centre tail-feathers with brown webs along the outer edge, but having only a few radii on the inner one; remainder of the feathers having only long lateral filaments, only the basal portion being webbed; the outer feather curving gracefully outward at the ends, the outer web being smoky brown and the tip black, the inner w

being ashy grey, with triangular notches of tawny buff, these notches being transparent by the absence of the radioli of the feather, the inner edge of the outer tail-feather recurved on itself and edged with black; head and neck dark slaty brown, as also the sides of the face, ear-coverts, and cheeks; under surface of body ashy brown, washed with rufous on the throat; under wing-coverts and axillaries ashy: "bill and nostrils black; bare space round the eye blackish lead-colour; legs and feet black, the scales mealy; iris blackish brown" (*J. Gould*). Total length 38 inches, culmen 1.65, wing 11, tail 24, tarsus 4.4.

Adult female. Differs from the male in wanting the lyre-shaped tail, all the feathers of the tail being webbed and broad, the centre ones the longest, the outer feathers with internal notches of transparent plumage without radioli. Total length 33 inches, culmen 1.5, wing 11, tail 19, tarsus 4.

Nestling. Entirely covered with black down.

Hab. New South Wales.

| | | |
|--------------|------------------|------------------|
| a. ♂ ad. st. | New South Wales. | Hardwicke Coll. |
| b. ♂ ad. sk. | New South Wales. | Dr. Forbes [P.]. |
| c. ♀ ad. sk. | New South Wales. | Hardwicke Coll. |
| d. ♀ ad. sk. | New South Wales. | Hume Coll. |

2. *Menura victorise*.

Menura victorise, *Gould*, *P. Z. S.* 1862, p. 23; *id.* *Handb. B. Austr.* i. p. 302 (1865); *Gray*, *Hand-l. B.* i. p. 185, no. 2531 (1860); *Ramsay*, *Tab. List Austr. B.* p. 7 (1888).

Adult male. Similar to *M. superba*, but distinguished by the white inner web of the outer tail-feather viewed from below, the inner web being very broadly notched or barred with chestnut. Total length 36 inches, culmen 1.5, wing 10.4, tail 24, tarsus 4.4.

Adult female. Similar to the female of *M. superba*, but with chestnut bars on the under surface of the outer tail-feather. Total length 27 inches, culmen 1.6, wing 10.5, tail 15.5, tarsus 4.4.

Hab. Victoria and South Australia.

Adult male. Similar to *M. superba*, but chestnut above, with a slaty-grey head and neck; the tail-feathers not so long as in *M. superba*, and all more webbed than in that species, the outer feather black with no bars on the inner web; under surface light ashy, the throat chestnut, the lower breast washed with tawny buff, the under tail-coverts chestnut. Total length 31 inches, culmen 1·5, wing 10, tail 19·5, tarsus 4·3.

Adult female. Similar to the female of *M. superba*, but more chestnut above. Total length 28 inches, culmen 1·6, wing 9·5, tail 16, tarsus 4·2.

Hab. Wide-Bay and Richmond-River districts in Eastern Australia.

| | | |
|--------------------------------------|--|---|
| <i>a.</i> ♀ ad. sk. | Richmond River. | F. Strange [C.]. |
| <i>b, c, d.</i> ♂ ad. et
imm. sk. | Richmond River (<i>J. T. Cocke-
rell</i>). | Salvin-Godman Coll. |
| <i>e, f.</i> ♂ ad. et
juv. sk. | Richmond River. | F. Strange [C.].
(Types of species.) |

ADDENDA.

THE following additions to the collection have been made, and some alterations in the letterpress have become necessary, during the progress of the present volume through the press.

Mr. Oates (Faun. Brit. Ind., Aves. i. p. 9) has recently divided the *Sturnidae* into two families—*Sturnidae* or true Starlings, which have no rictal bristles, and are mostly terrestrial in habit: and *Aulobetidae* or Tree-Starlings, which have rictal bristles. This seems a natural division, which I am prepared to accept.

| Add:— | Page 27. <i>Sturnus vulgaris</i> . | |
|-----------|------------------------------------|------------------------------|
| ♂ ad. sk. | Isle of Skye, March. | W. R. Ogilvie Grant, Esq. P. |
| ♂ ad. sk. | Tiree, Feb. 24. | Glenelg Lodge, P. |
| ♂ ad. sk. | Inverness, Oct. 1. | W. R. Ogilvie Grant, Esq. P. |
| ♂ ad. sk. | Dun, Berwick, Jan. 1. | Dun, Esq. |
| ♂ ad. sk. | Chorley, Lancashire, Jan. 1. | J. Ferrard, Esq. |
| ♂ ad. sk. | Garsang, Lancashire, Jan. 1. | W. R. Ogilvie Grant, Esq. P. |
| ♂ ad. sk. | Totney, Lancashire, Jan. 1. | J. Ferrard, Esq. |
| ♂ ad. sk. | Workop, North, Jan. 1. | J. Ferrard, Esq. |
| ♂ ad. sk. | Workop, North, Jan. 1. | J. Ferrard, Esq. |

| | | |
|--|--|-----------------------------------|
| $\beta''-\pi^3$. ♂; ρ^3-v^4 . ♀ ad. et juv. sk. | Near Brighton, Jan. to Dec. | R. B. Sharpe, Esq [P.]. |
| ϕ^4 . ♂; χ^4, ψ^4 . ♀ ad. sk. | Avington, Hants, March, Oct. (G. E. S.). | Shelley Coll. |
| $\omega^4-\epsilon^5$. ♂; ζ^5 . ♀ ad. sk. | Whatcombe, Dorset, Feb., March. | J. C. Mansel-Pleydell, Esq. [P.]. |
| $\eta^5-\kappa^5$. ♂; $\lambda^5-\sigma^5$. ♀ ad. sk. | Kingsbridge, Devon, Jan., Feb. | Dr. E. Elliot [P.]. |
| $\tau^5-\chi^5$. ♂; ψ^5, ω^5 . ♀ ad. sk. | St. Bride's, Pembrokeshire, Dec., Jan. | Hon. W. Edwards, [P.]. |
| $\alpha^6-\beta^6$. ♂; γ^6, δ^6 . ♀ ad. sk. | Sweden, April (W. Meres). | R. B. Sharpe, Esq. [P.]. |
| $\epsilon^6-\theta^6$. ♂ ad. et juv. sk. | Bohemia, Sept. | Dr. A. B. Meyer [P.]. |
| $\iota^6-\nu^6$. ♂; ξ^6, \omicron^6 . ♀ ad. et juv. sk. | Agram, Croatia, Aug.-Nov. | Prof. S. Brusina [P.]. |
| π^6 . ♂ ad. sk. | France. | M. Boucard [C.]. |
| ρ^6 . ♂ ad. sk. | Switzerland. | Dr. A. B. Meyer [P.]. |
| $\sigma^6-\gamma^7$. ♂ ad.; $\delta^7-\nu^7$. ♀ ad. sk. | Italy, Jan.-Dec. | R. B. Sharpe, Esq. [P.]. |
| $\xi^7-\omega^7$. Ad. sk. | Barcelona, Spain, April. | M. L. Laglaize [C.]. |
| $\alpha^8-\alpha^8$. Ad. sk. | Morocco. | M. Olcese [C.]. |
| β^8 . ♀ ad. sk. | Egypt, Feb. 22. | Shelley Coll. |

Add:—

Page 33. *Sturnus menzbieri*.

| | | |
|--|---------------------------|----------------------|
| $\mu^1-\tau^1$. Ad. sk. | Mosrut. | Capt. B. Jones [P.]. |
| $\nu^1-\sigma^1$. ♂; $\pi^1-\gamma^1$. ♀ ad. sk. | Lucknow, Dec., Jan., Feb. | G. Reid, Esq. [P.]. |

Add:—

Page 37. *Sturnus purpurascens*.

| | | |
|--------------|---------------|----------------------|
| q. Ad. sk. | Mosrut. | Capt. B. Jones [P.]. |
| r. ♀ ad. sk. | Lucknow, Jan. | G. Reid, Esq. [P.]. |

Add:—

Page 37. *Sturnus porphyronotus*.

| | | |
|------------------------------|------------------------------|-------------------------|
| m', n. Imm. sk. | Chirwagh. Central Asia. Aug. | Rev. Dr. Laundell [C.]. |
| σ^1, ρ^1 . Ad. sk. | Kashgar, Sept. | Rev. Dr. Laundell [C.]. |
| q', r'. Ad. sk. | Yarkand, Sept. | Rev. Dr. Laundell [C.]. |
| s. Ad. sk. | Kashgar, Oct. | Rev. Dr. Laundell [C.]. |

Page 40.

For "2. **POLIOPSAR**" read "2. **SPODIOPSAR**."*Spodiopsar*, Sharpe, *Ibis*, 1890, p. 690.

Mr. Oates having pointed out to me that my generic name of *Poliopsar* had been preoccupied by Cassin (Proc. Philad. Acad. 1867, p. 55). I have substituted the name of *Spodiopsar* for it.

Page 45. *Spodiopsar burmanicus*.

Mr. Oates (Faun. Brit. Ind., Aves, i. p. 535) places this species in the genus *Graculipica*. Count Salvadori has described (Ann. Mus. Genov. (2) vii. p. 384) a species from the Karen Hills as *S. fuscogularis*, but I agree with Mr. Oates that it is not different from *S. burmanicus*.

Page 46. *Spodiopsar leucocephalus*.

This species is also placed in the genus *Graculipica* by Mr. Oates (*op. cit.* p. 536).

Page 47. *Spodiopsar andamanensis*.

Mr. Oates (*op. cit.* p. 529) places this species in the genus *Sturnia*.

Page 48. *Spodiopsar erythropygius*.

This is also a *Sturnia* according to Mr. Oates (*l. c.*).

Page 48. *Spodiopsar malabaricus*.

Mr. Oates considers *S. nemoricola* to be a distinct species, and places it and *S. malabarica* in the genus *Sturnia* (*op. cit.* p. 528).

Add:—

y', z'. ♂ ♀ ad. sk. Manipur, Feb., March (A. O. H.). Hume Coll.

Page 52. *Spodiopsar nemoricola*.

Spec. a is the type of *Sturnia nemoricola* of Jerdon.

Page 56. STURNOPASTOR.

For Hodge. in Gray's Zool. Misc. p. 84 "(1884)" read "(1844)."

Add:— Page 63 Pastor roseus.

Page 89. *Acridotheres mahrattensis*.

Spec. *c* is the type of the species.

Page 98. **MAINATUS.**

This genus must after all stand as *Eulabes*, which Mr. Oates (Faun. Brit. Ind., Aves, i. p. 509) has shown to have been published by Cuvier in 1817. By some mistake I only consulted the 2nd edition of the 'Règne Animal,' which was published in 1829.

Page 109.

"**Mainatus robustus**" must now be called "**Eulabes robustus**."

Add:— Page 121. **PHOLIDAUGES.**

Speculipastor, *Reichen. Orn. Centralbl.* 1879, p. 108.

A fourth species of *Pholidauges* is *Notauges fischeri*, Reichen. (*Spreo fischeri* of the present work, p. 189), till lately known by the female specimen procured by the late Dr. Fischer in Masai-Land, and now in the Berlin Museum. The male was procured on Kilimanjaro by Mr. Hunter, and presented by him to the British Museum.

The 'Key' to the genus will therefore require modification.

- a.* No white base to the quills.
 - a'*. Plumage metallic puce-colour on the upper surface, the throat and chest of the same metallic colour.
 - a''*. No white edging to the outer tail-feather . . . *leucogaster*, p. 121.
 - b''*. A white edging to the outer tail-feather . . . *cerreanari*, p. 123.
 - b'*. Plumage blue-black with a purplish shade, the throat and chest also black *fischeri*, p. 667.
- b.* Quills with a white base *bicolor*, p. 125.

Add:— **Pholidauges fischeri.**

Spreo fischeri (*Reichen.*), *Sharpe, Cat. B.* xiii. p. 189.

Pholidauges fischeri, *Shelley, P. Z. S.* 1889, p. 368.

Adult male. Entire upper surface blue-black with a purplish gloss; lesser wing-coverts and quills black, glossed externally with purple on the coverts, and with steel-green on the quills, the inner secondaries being entirely green; tail-feathers black glossed with green; entire head and throat and breast glossy black like the upper surface, extending down the centre of the breast to the upper part of the abdomen; remainder of breast and under tail-coverts yellowish white; thighs black; under wing-coverts glossy black. Total length 6·3 inches, culmen 0·6, wing 3·9, tail 2·5, tarsus 0·9.

Hab. Interior of Eastern Africa.

a. ♂ ad. sk. Kilimanjaro, 6000 feet, Aug. H. C. V. Hunter

Page 146. *Calornis tytleri*.

Spec. *p, q*, from Port Mouat (*Hume Coll.*), are the types of the species.

Page 149.

For "9." *Calornis obscura*, read "8."

Page 169.

For "*Pyrrhocheira caffer*" read "*P. caffra*."

Add:— Page 178. *Lamprocolius sycobius*.

L. sycobius, *Shelley, P. Z. S.* 1889, p. 368.

i. ♂ ad. sk. Duruma, E. Africa, Aug. 29. H. C. V. Hunter, Esq.
[P.]

Add:— Page 185. *Coccycolius iris*.

a. Vix ad. sk. Loss Islands. Paris Museum [P.].

Page 189. *Spreo fischeri*.

This is a *Pholidauges* (vide *suprà*, p. 667).

Add:— Page 261. *Spermestes bicolor*.

q. Imm. sk. Rabba, R. Niger. Capt. M. Ferryman [P.].

Add:— Page 276. *Lagonosticta minima*.

o. Ad. sk. Lukoja, River Niger. Capt. M. Ferryman [P.].

Add:— Page 304. *Pytelia schlegeli*.

e. Ad. sk. Yambuya, R. Aruwihimi, Congo Mrs. Jameson [P.].
(*J. S. Jameson*)

Add :— Page 326. **MUNIA.**

Oryzivora, *Jerd. B. Ind.* ii. p. 359 (1863).

Page 346. **Munia punctulata.**

Spec. *u'-v'* are the types of Hodgson's *Munia lineoventer*.

Page 400. **Estrilda nonnula.**

Dr. Hartlaub (*Ibis*, 1890, p. 263) thinks that *E. nonnula* and *E. tenerrima* are not the same species. After a re-examination of the series in the Museum, I believe that *E. nonnula* is the young bird.

e, f. Ad. sk. Yambuya, Aruwhimi River (*J. S. Mrs. Jameson [P.] Jameson*).

Add :— Page 400. **Estrilda phœnicotis.**

e'. Ad. sk. Benue, River Niger. Capt. M. Ferryman [P.].

Add :— Page 436. **Nelicurvius nelicourvi.**

m. Imm. sk. Madagascar. Purchased.

Page 451. **Hyphantornis cucullatus.**

The name of *Ploceus solitarius*, Württ., must be erased from the list of synonyms.

Add :— Page 455. **Hyphantornis bohndorffi.**

a. Ad. sk. Yambuya, R. Aruwhimi, Congo Mrs. Jameson [P.].
(*J. S. Jameson*).

Add :— Page 472. **Cinnamopteryx castaneofusca.**

t. Juv. sk. Abouri, Aguapim (*G. E. S.*). Shelley Coll.

Page 474. **Ploceella javanensis.**

Spec. *w-a'* are the types of *P. chrysæus*.

Add :— Page 479. **Malimbus bartletti.**

k. Ad. sk. Gold Coast (*H. T. Ussher*). Shelley Coll.
l. Ad. sk. Abouri, Aguapim, Feb. (*G. E. S.*). Shelley Coll.

Add :— Page 481. **Malimbus nitens.**

q. Ad. sk. Fantee (*H. T. Ussher*). Shelley Coll.
r. Juv. sk. Abouri, Aguapim (*T. E. Buckley*). Shelley Coll.
s. Ad. sk. Wasa Province (*H. F. Blissett*). Shelley Coll.

Add:— Page 484. *Nesacanthis eminentissima*.

| | | |
|------------------|----------------------|-----------------|
| ♂. ♂ ad. sk. | Anjuan. | M. Humblot [C.] |
| 2, 10. ♂ ad. sk. | Great Comoro Island. | M. Humblot [C.] |

Page 484. *NEACANTHIS FUSCO-FULVA*.

For "*N. FUSCO-FULVUS*" read "*N. FUSCO-FULVA*."

Add:— Page 501. *AMBLYOSPIZA*.

Amblyospiza concolor, *Bocage, Journ. Lisb.* 1888, p. 220.

Hab. S. Thomas, W. Africa.

Page 528. *OTOCORYS*.

Mr. J. Dwight has recently written an important essay on the 'Horned Larks of North America' in the 'Auk' for April, 1890. He traverses the conclusions of Mr. Henshaw and divides the American forms into some additional races, which, *more Americano*, he designates by trinomial titles. Accordingly, if these races are well defined, they will rank as subspecies in the present volume, and the following must be added to *O. alpestris*:—

Subsp. ζ. *Otocorys adusta*.

Otocoris alpestris adusta, *Dwight, t. c.* p. 148.

Hab. Southern Arizona and New Mexico, Western Texas, and southward into Mexico.

Subsp. η. *Otocorys merrilli*.

Otocoris alpestris merrilli, *Dwight, t. c.* p. 153.

Hab. Eastern Oregon, Washington, and British Columbia, between the Cascade and Rocky Mountains; southward in winter into

Add :— Page 536. *Otocorys brandti*.

v. Juv. sk. Saiar Mountains, Central Asia, St. George Littledale,
6000 feet, Aug. Esq. [P.].

Add :— Page 540. *Otocorys arenicola*.

u'', *v''*. ♂ ad. Texas, Dec., Feb. (*H. E. Dresser*). Salvin-Godman Coll.

Add :— Page 546. *Otocorys chrysolæma*.

v''-y''. ♂ ad.; *z''*. ♀ San Diego, California, Feb., Salvin-Godman Coll.
ad.; *a''*. Juv. sk. June (*F. Stephens*).
b'', *c''*. ♂; *d''*. ♀ ad. Ajusco, Valley of Mexico, Salvin-Godman Coll.
sk. Sept. (*W. B. Richardson*).
e'', *f''*. ♂ ad. sk. Rio Frio, Iztaccihuatl, Mex- Salvin-Godman Coll.
ico, Sept. (*W. B. R.*).
g''. Juv. sk. Las Vigas, Jalapa (*F. Fer-* Salvin-Godman Coll.
rari-Perez).
h'', *i''*. ♂ ♀ ad. sk. Zacatecas, Feb. (*W. B. R.*). Salvin-Godman Coll.

Page 572. *Alauda arvensis*.

Add :— *α*. Dark form.

u'-y'. ♂ ad. sk. Carse of Gowrie. C. Heron Watson,
Esq. [P.].
z', *a''*, *b''*. ♂ ad. Whatcombe, Dorset, March 21. J.C. Mansel-Pleydell,
sk. Esq. [P.].

β. Rufous form.

p''-r''. ♂; *s''*, *t''*. Houghton, Dorset, Feb. 21. J.C. Mansel-Pleydell,
♀ ad. sk. Esq. [P.].
u''-x''. ♂; *y''*. Whatcombe, Dorset, Feb. 21, J.C. Mansel-Pleydell,
♀ ad. sk. March 21. Esq. [P.].



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$\frac{1}{2}$

J. Smith del et lith

Sturnus menabieri.



$\frac{1}{2}$

Sturnus porphyronotus



2





2

1 *Pelecanus burmanicus*.

2 *Pelecanus leucocephalus*.





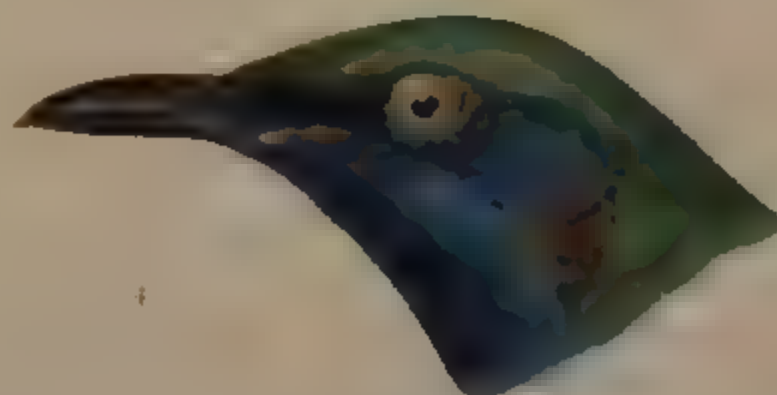


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Aplonis brunneescens.





1 *Lanius excubitorides* 2 *Lanius excubitorides glaucus*
 3 *Lanius excubitorides* 4 *Lanius excubitorides*





1



2



3



4



5



6

1 *Lanius purpureus*

2 *Lanius diderpterus*

3 *Lanius sycetus*

4 *Lanius chalybeus*

5 *Lanius purpureus*

6 *Lanius excubitor*





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W. J. M. S. P. S. P.

Frinichia becaam



1



2



3



4



5



6

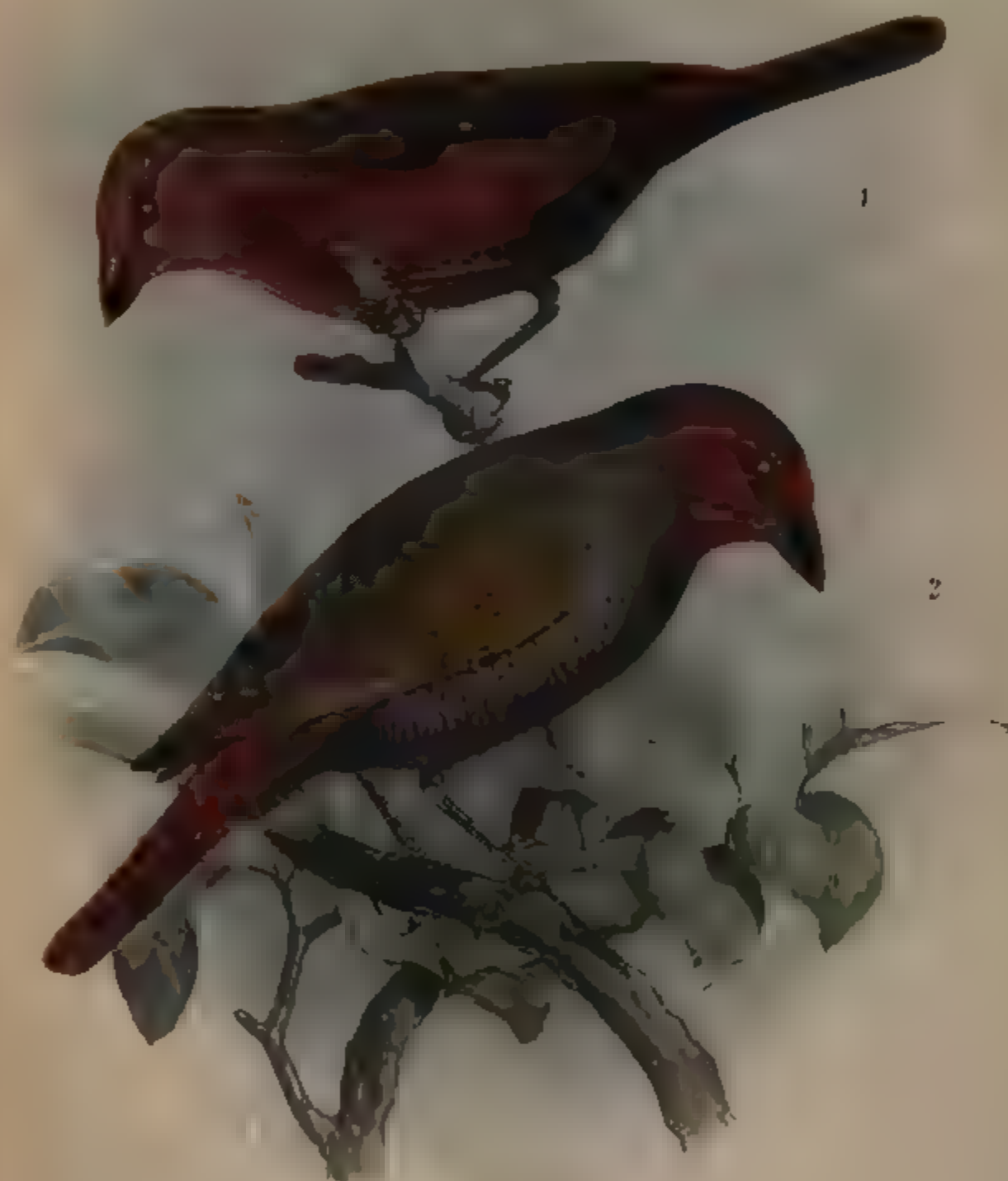
Plate 1. Birds B. M. Vol. VII

19 1

1 ♀ erythrope 2 ♀ carolinensis 3 ♀ quail
4 ♀ intermedia 5 ♀ erythrope 6 ♀ quail



1 *Laquenositta pumilio* 2 *Laquenositta polioptila*
3 *Laquenositta cinerea*







1



4



2



5



3



6

Twice the size of life

Hyphantornis

- | | |
|--------------------------|--------------------------|
| 1 <i>H. castaneops</i> | 4 <i>H. aureoflavus</i> |
| 2 <i>H. canthopterus</i> | 5 <i>H. castaneiceps</i> |
| 3 <i>H. aurantius</i> | 6 <i>H. boyeri</i> |









Spermospiza rubicapilla



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